

OGUZ OKAY

Department of Chemistry
Istanbul Technical University
Maslak, 34469 Istanbul, Turkey
phone: (0090) 212-2853156 fax: (0090) 212-2856386
e-mail: okayo@itu.edu.tr
web: <http://web.itu.edu.tr/okayo/>

PERSONAL

Born: September 14, 1955, Istanbul, Turkey.

Marital Status: Married with two children

EDUCATION

Ph.D. in Macromolecular Chemistry, Vienna Technical University, Austria, June 1981.

B.S. in Chemical Engineering, Istanbul University, June 1977.

PROFESSIONAL EXPERIENCE

Professor. Physical Chemistry. Department of Chemistry, Istanbul Technical University, Turkey, 1998 to present

Visiting Professor. Helmholtz Zentrum Berlin, Institute Soft and Functional Materials, Wannsee, Berlin, Germany, 2015 (12 months)

Visiting Professor. Institute of Physical Chemistry, Clausthal University of Technology, Clausthal-Zellerfeld, Germany, 2006 (2 months), 2009 (2 months)

Visiting Professor. Institute of Physical Chemistry, Dresden Technical University, Dresden, Germany, 2007 (4 months).

Visiting Professor. Department of Chemical and Biological Engineering, University of Colorado, Boulder, 2004 (4 months).

Visiting Professor, University of Stuttgart, Institute for Textil and Fiber Chemistry, Stuttgart, Germany, 2002 (3 months)

Founding Coordinator, Interdisciplinary Polymer Science and Technology Graduate Program, Istanbul Technical University, 1999-2000; 2019-2022.

Professor. Head of Physical Chemistry Section. Department of Chemistry, Kocaeli University, Turkey, 1995 to 1998

Associate Professor. Department of Chemistry, Eastern Mediterranean University, Gazimagusa, North Cyprus, 1990 to 1992

Scientific Advisor. Department of Chemistry, TÜBİTAK Marmara Research Center, Gebze, Kocaeli, Turkey, 1995 to 2001.

Senior Researcher. Department of Chemistry, TÜBİTAK Marmara Research Center, Gebze, Kocaeli, Turkey, 1992 to 1995.

Visiting Researcher. Institute of Technical Chemistry, University of Stuttgart, Germany, 1988 to 1999 (18 months)

Research Scientist. Departments of Chemistry and Chemical Engineering, TÜBİTAK Marmara Research Center, Gebze, Kocaeli, Turkey, 1982 to 1990.

Research Associate. Macromolecular Chemistry, Vienna Technical University, Austria, June – December 1981.

HONORS AND AWARDS

2014 Georg-Forster Research Award, Alexander von Humboldt Foundation, Germany

2007 Science Award, Istanbul Technical University Foundation (with D. Ceylan)

2006 Elected to the *Turkish Academy of Sciences* (TÜBA)

2006 Honorary Member, Turkish Chemical Society

2005 TUBITAK Science Award (**The highest science award in Turkey**)

1996 Science Award, Kocaeli University

1995 Science Award, TUBITAK Marmara Research Center

1994 SEDAT SIMAVI Natural Sciences Award

1990 TUBITAK Science Encouragement Award

1988 Alexander von Humboldt Research Fellowship

1977 TUBITAK-NATO Doctoral Fellowship

EDITORIAL DUTIES IN INTERNATIONAL SCIENTIFIC JOURNALS

Advances in Polymer Science, Springer, Editorial Board Member (2013-)
Reactive and Functional Polymers, Elsevier, Editorial Board Member (2019-)
Turkish Journal of Chemistry, TUBITAK, Editorial Board Member (~2000-)
Macromolecular Materials and Engineering, Wiley, Editorial Board Member (~2024-)

PUBLICATIONS & CITATIONS:

Publications: ~200 papers, 2 books, 3 book chapters, 6 patents

Citations: ~15000

H-index: 69

PUBLICATIONS

228. 4D Printing of Self-Healing and Shape-Memory Hydrogels Sensitive to Body Temperature.
G. Aydin, T. Abdullah, O. Okay. Eur. Polym. J. 223, 113651 (2025)

227. Design of electrospun hydrophobically modified polyacrylic acid hydrogel nanofibers and their application for removal of ciprofloxacin.
G. Ilyasoglu, T. Abdullah, O. Okay, I. Koyuncu, J Polym Environ (2025).
<https://doi.org/10.1007/s10924-025-03504-9>

226. Hexadecyl acrylate-based photo-curable resins for 4D printing of body temperature responsive hydrogels with shape-memory and self-healing properties.
Inventors: T. Abdullah, G. Aydin, O. Okay. Applicant: Istanbul Technical University. Publ. No WO/2024/263142, Publ. Date 26.12.2024, International Appl. No. PCT/TR2024/050687, International Filing Date 4.06.2024

225. Silk Fibroin-Based Multiple-Shape-Memory Organohydrogels.
C. B. Oral, E. Su, O. Okay, ACS Appl. Mater. Interfaces. 16, 56146–56158 (2024)

224. Self-healing and shape-memory in mechanically robust hydrogels.
O. Okay, AsiaChem. 133 (2024)

223. Melt-Processable and Electrospinnable Shape-Memory Hydrogels.
T. Abdullah, C. Altinkok, O. Okay, Macromol. Mater. Eng. 2400166 (2024)

222. Mechanically Robust Shape-Memory Organohydrogels Based on Silk Fibroin with Organogel Microinclusions of Various Sizes.

Y. Bas, O.Okay, Macromol. Mater. Eng. 2300129 (2023)

221. Cryogelation reactions and cryogels: Principles and challenges

O. Okay, TJC (2023)

220. Effects of Cryogenic Condition and Chemistry on the Properties of Synthetic and Biopolymer Cryogels.

G. Doser, E. Su, O.Okay, React. Funct. Polym. 190, 105635 (2023)

219. Silk Fibroin Based Shape-Memory Organohydrogels with Semicrystalline Microinclusions.

C. B. Oral, B. Yetiskin, C. Cil, F. N. Kok, O. Okay, ACS Appl. Bio Mater. 6, 1594-1603 (2023)

218. 4D Printing of Body Temperature-Responsive Hydrogels Based on Polyacrylic Acid with Shape-Memory and Self-Healing Abilities.

T. Abdullah, O. Okay. ACS Appl. Bio Mater. 6, 703-711 (2023)

217. Mechanically Strong Superabsorbent Terpolymer Hydrogels Based on AMPS via Hydrogen-Bonding Interactions.

B. Sekizkardes, E. Su, O. Okay, ACS Appl. Polym. Mater. 5, 2043–2050 (2023).

216. Roadmap to Design Mechanically Robust Copolymer Hydrogels Naturally Cross-Linked by Hydrogen Bonds.

C. Erkoc, E. Yildirim, M. Yurtsever, O. Okay, Macromolecules 55, 10576–10589 (2022)

215. Sterilization studies of hydrogel nanocomposites designed for possible biomedical applications before in vivo research.

G. B. Sekitmen, E. Su, S. D. Gür, S. Ide, O. Okay, React. Funct. Polym. 180, 105393 (2022)

214. Photocurable Methacrylated Silk Fibroin/Hyaluronic Acid Dual Macrocrosslinker System Generating Extracellular Matrix-Inspired Tough and Stretchable Hydrogels.

B. Yetiskin, B. Tavsanli, O. Okay, Macromol. Mater. Eng. 2200334 (2022)

213. A silk fibroin cryogel building adaptive organohydrogels with switching mechanics and viscoelasticity.

B. Yetiskin, O. Okay, ACS Appl. Polym. Interfaces 4, 7, 5234–5245 (2022)

212. Polycyclic aromatic hydrocarbon accumulation performances of monophasic butyl rubber passive samplers.

O. E. Tureyen, S. D. Yakan, A. Yilmaz, B. Yetiskin, O. Okay, O. S. Okay, Environ. Process. 9, 34 (2022)

211. Butyl rubber as a macro-cross-linker in the preparation of a shape-memory and self-healing polymer.

B.Tavsanli, C. Bilici, P. Sungur, S. Ide, O. Okay, J. Rheo. 66, 1367-1378 (2022)

210. Surface modification of graphene oxide for preparing self-healing nanocomposite hydrogels. E. B. Ceper, E. Su, O. Okay, O. Güney, Polym. Adv. Technol. 33, 2276-2288 (2022).
209. Butyl rubber-based interpenetrating polymer networks with side chain crystallinity: Self-healing and shape-memory polymers with tunable thermal and mechanical properties. E. Su, G. Bayazit, S. Ide, O. Okay, Eur. Polym. J. 168, 111098 (2022)
208. Shape-memory semicrystalline interconnected IPNs based on various rubbers. O. Akca, O. Okay Macromol. Mater. Eng. 307, 2100776 (2022)
207. Bisphosphonate-functionalized poly(amido amine) crosslinked 2-hydroxyethyl methacrylate hydrogel as tissue engineering scaffold . M. N. Guven, B. Balaban,, G. Demirci, H. Y. Acar, O. Okay, D. Avci, Eur. Polym. J. 159, 110732 (2021).
206. “Reentrant Conformation Transition in Hydrogels” O. Okay, Gels 7, 98 (2021).
205. “Solvent-free UV polymerization of n-octadecyl acrylate in butyl rubber: A simple way to produce tough and smart polymeric materials at ambient temperature” E. Su, C. Bilici, G. Bayazit, S. Ide, O. Okay, ACS Appl. Mater. Interfaces 13, 21786–21799 (2021).
204. “Behaviors of quenched polyampholytes in solution and gel state” S. E. Kudaibergenov, O. Okay, Polym Adv Technol. 32, 2639–2654 (2021)
203. “Performance of butyl rubber-based macroporous sorbents as passive samplers” O. E. Tureyen, A. Yilmaz, S. D. Yakan, B. Yetiskin, O. Okay, O. S. Okay, Environ. Sci. Pol. Res. 28, 3766–3773 (2021)
202. “Self-Healing and Self-Recovering Hydrogels” C. Creton, O. Okay (eds.) Advances in Polymer Science 285, Springer, 2020.
201. “How to design both mechanically strong and self-healable hydrogels?” O. Okay, Adv. Polym. Sci. 285, 21-62 (2020)
200. “Self-healing and shape-memory hydrogels” O. Okay, HJBC 48, 507-525 (2020)
199. “Stretchable silk fibroin hydrogels” C. B. Oral, B. Yetiskin, O. Okay, Int. J. Bio. Macromol. 161, 1371-1380 (2020)
198. “Alendronate-functionalized poly(amido amine) cryogels of high-toughness for biomedical applications” M. N. Guven, G. Demirci, S. Altuncu, U. Gulyuz, O. Okay, H.Y. Acar, D. Avci, Polymer 190, 122248, 1-11 (2020)

197. "Highly stretchable and thermally healable polyampholyte hydrogels via hydrophobic modification"
G. Toleutay, E. Su, S. Kudaibergenov, O. Okay, *Colloid Polym. Sci.* 298, 273-284 (2020)
196. Preparation of dextran cryogels for separation processes of binary dye and pesticide mixtures from aqueous solutions. B. Ari, B. Yetiskin, O. Okay, N. Sahiner. *Polym. Eng. Sci.* 60, 1890-1901 (2020)
195. "Macroporous hyaluronic acid cryogels of high mechanical strength and flow-dependent viscoelasticity"
B. Tavsanli, O. Okay, *Carbohyd. Polym.* 229, 115458, 1-10 (2020)
194. "Hydrophobically modified nanocomposite hydrogels with self-healing ability"
O. Akca, B. Yetiskin, O. Okay, *J. Appl. Polym. Sci* 137, 48853, 1 - 8 (2020)
193. "Single-, double-, and triple-network macroporous rubbers as a passive sampler"
B. Yetiskin, O. E. Tureyen, A. Yilmaz, S. D. Yakan, O. S. Okay, O. Okay, *ACS Appl. Mater. Interfaces* 11, 28317–28326 (2019)
192. "A self-healing and highly stretchable polyelectrolyte hydrogel via cooperative hydrogen-bonding as a superabsorbent polymer"
E. Su, M. Yurtsever, O. Okay, *Macromolecules* 52, 3257-3267 (2019)
191. "One-step injectable and bioreducible poly(β -amino ester) hydrogels as controlled drug delivery platform"
H. B. Bingol, M. S. Altuncu, F. D. Demir, A. Ak, U. Gulyuz, H. Y. Acar, O. Okay, D. Avci, *ACS Appl. Polym. Mater.* 1, 1724–1734 (2019)
190. "Cryogenic formation-structure-property relationships of poly(2-acrylamido-2-methyl-1-propanesulfonic acid) cryogels"
E. Su, O. Okay, *Polymer* 178, 121603, 1-9 (2019)
189. "Cryogel composites based on hyaluronic acid and halloysite nanotubes as scaffold for tissue engineering"
S. S. Suner, S. Demirci, B. Yetiskin, R. Fakhrullin, E. Naumenko, O. Okay, R. S. Ayyala, N. Sahiner, *Int. J. Bio. Macromol.* 130, 627–635 (2019)
188. "Semicrystalline physical hydrogels with shape-memory and self-healing properties"
O. Okay, *J. Mater. Chem. B.* 7, 1581-1596 (2019)
187. "Mechanically robust and stretchable silk/hyaluronic acid hydrogels"
B. Tavsanli, O. Okay, *Carbohyd. Polym.* 208, 413-420 (2019)
186. "Structure-property relationships of novel phosphonate-functionalized networks and gels of poly (β -amino esters)"
S. Altuncu, F. D. Duman, U. Gulyuz, H. Y. Acar, O. Okay, D. Avci, *Eur. Polym. J.* 113, 155-164 (2019)

185. "Highly-stretchable and rapid self-recoverable cryogels based on butyl rubber as reusable sorbents"
S. Muslimova, B. Yetiskin, O. Okay, Gels 5, 1 (2019)
184. "Semi-crystalline, three-segmented hybrid gels with multiple shape memory effect"
A. Argun, U. Gulyuz, O. Okay, Macromol. Symp. 385, 1800164 (2019)
183. "High-strength and self-recoverable silk fibroin cryogels with anisotropic swelling and mechanical properties"
B. Yetiskin, O. Okay, Int. J. Bio. Macromol. 122, 1279-1289 (2019)
182. "Production of self-healable and shape memory butyl rubber"
O. Okay, C. Bilici,
T. C. Patent, TR 2019 09028 A2 (2019)
181. "Monitoring the instant creation of a new fluorescent signal for evaluation of DNA conformation based on intercalation complex"
A. T. Uzumcu, O. Guney, O. Okay, J. Fluoresc. 28, 1325-1332 (2018)
180. "Bisphosphonic acid functionalized crosslinkers to tailor hydrogel properties for biomedical applications"
M.N. Guven, M.S. Altuncu, T. Bal, D. Oran, U. Gulyuz, S. Kizilel, O. Okay, D. Avci, ACS Omega 3, 8638–8647 (2018)
179. "Toughness improvement and anisotropy in semicrystalline physical hydrogels"
C. Bilici, D. Karaarslan, S. Ide, O. Okay, Polymer 151, 208–217 (2018)
178. "Interfacing soft and hard materials with triple-shape-memory and self-healing functions"
A. Argun, U. Gulyuz, O. Okay, Macromolecules 51, 2437-2446 (2018)
177. "Highly stretchable DNA/clay hydrogels with self-healing ability"
A. T. Uzumcu, O. Guney, O. Okay, ACS Appl. Mater. Interfaces 10, 8296-8306 (2018)
176. "Hybrid cross-linked poly(2-acrylamido-2-methyl-1-propanesulfonic acid) hydrogels with tunable viscoelastic, mechanical and self-healing properties"
E. Su, O. Okay, React. Funct. Polym. 123, 70-79 (2018)
175. "Cryogelation within cryogels: Silk fibroin scaffolds with single-, double- and triple-network structures"
B. Yetiskin, C. Akinci, O. Okay, Polymer 128, 47-56 (2017)
174. "Mechanically strong hyaluronic acid hydrogels with an interpenetrating network structure"
B. Tavsanli, O. Okay, Eur. Polym. J. 94, 185-195 (2017)
173. "Yielding behavior of tough semicrystalline hydrogels"
C. Bilici, S. Ide, O. Okay, Macromolecules 50, 3647-3654 (2017)

172. "High-strength silk fibroin scaffolds with anisotropic mechanical properties"
B. Yetiskin, O. Okay, *Polymer* 112, 61-70 (2017)
171. "Polyampholyte hydrogels formed via electrostatic and hydrophobic interactions"
E. Su, O. Okay, *Eur. Polym. J.* 88, 191-204 (2017)
170. "Reversibility of strain stiffening in silk fibroin gels"
Z. Oztoprak, O. Okay, *Int. J. Bio. Macromol.* 95, 24-31 (2017)
169. "Nanocomposite DNA hydrogels with temperature sensitivity"
A. T. Uzumcu, O. Guney, O. Okay, *Polymer* 100, 169-178 (2016)
168. "Preparation and fracture process of high strength hyaluronic acid hydrogels cross-linked by ethylene glycol diglycidyl ether"
B. Tavsanli, O. Okay, *React. Funct. Polym.* 109, 42-51 (2016)
167. "Melt-processable shape-memory hydrogels with self-healing ability of high mechanical strength"
C. Bilici, V. Can, U. Nöchel, M. Behl, A. Lendlein, O. Okay, *Macromolecules* 49, 7442-74449 (2016)
166. "High-strength semi-crystalline hydrogels with self-healing and shape memory functions"
B. Kurt, U. Gulyuz, D. D. Demir, O. Okay, *Eur. Polym. J.* 81, 12-23 (2016)
165. "Nanostructural Evolution and Self-Healing Mechanism of Micellar Hydrogels"
V. Can, Z. Kochovski, V. Reiter, N. Severin, M. Siebenbürger, B. Kent, J. Just, J. P. Rabe, M. Ballauff, O. Okay, *Macromolecules* 49, 2281-2287 (2016)
164. "Self-Healing Poly(acrylic acid) Hydrogels: Effect of Surfactant"
U. Gulyuz, O. Okay, *Macromol. Symp.* 358, 232–238 (2015)
163. "Mechanically strong triple network hydrogels based on hyaluronan and poly(N,N-dimethylacrylamide)"
B. Tavsanli, V. Can, O. Okay, *Soft Matter* 11, 8517-8524 (2015)
162. "Self-healing poly(N-isopropylacrylamide) hydrogels"
U. Gulyuz, O. Okay, *Eur. Polym. J.* 72, 12-22 (2015)
161. "Self-healing hydrogels formed via hydrophobic interactions"
O. Okay, *Adv. Polym. Sci.* 268, 101-142 (2015)
160. "Preparation and physical properties of hyaluronic acid-based cryogels"
A. Strom, A. Larsson, O. Okay, *J. Appl. Polym. Sci.* 132, 42194 (2015)
159. "Self-healing poly(acrylic acid) hydrogels with shape memory behavior of high mechanical strength"

U. Gulyuz, O. Okay, Macromolecules 47, 6889-6899 (2014)

158. "Nonionic double and triple network hydrogels of high mechanical strength"
A. Argun, V. Can, U. Altun, O. Okay, Macromolecules 47, 6430-6440 (2014)

157. "Polymeric Cryogels: Macroporous Gels with Remarkable Properties"
O. Okay (ed.) Advances in Polymer Science 263, Springer, 2014.

156. "Synthesis and structure–property relationships of cryogels"
O. Okay, V. I. Lozinsky, Adv. Polym. Sci. 263, 103-157 (2014)

155. "Basic principles of cryotropic gelation"
V. I. Lozinsky, O. Okay, Adv. Polym. Sci. 263, 49-101 (2014)

154. "Highly stretchable self-healing poly(N,N-dimethylacrylamide) hydrogels"
M. P. Algi, O. Okay, Eur. Polym. J. 59, 113-121 (2014)

153. "Porous rubber cryogels: effect of the gel preparation temperature"
Z. Oztoprak, T. Hekimoglu, I. Karakutuk, D. C. Tuncaboylu, O. Okay, Polym. Bull. 71, 1983-1999 (2014)

152. "Surfactant-Induced Healing of Tough Hydrogels Formed via Hydrophobic Interactions"
A. Argun, M. P. Algi, D. C. Tuncaboylu, O. Okay, Colloid Polym. Sci. 292, 511-517 (2014)

151. "Autonomic self-healing in covalently crosslinked hydrogels containing hydrophobic domains"
D. C. Tuncaboylu, A. Argun, M. P. Algi, O. Okay, Polymer 54 (23), 6381-6388 (2013)

150. "Self-healing polyacrylic acid hydrogels"
U. Gulyuz, O. Okay, Soft Matter 9 (43), 10287-10293 (2013)

149. "Shape memory hydrogels via micellar copolymerization of acrylic acid and n-octadecyl acrylate in aqueous media"
C. Bilici, O. Okay. Macromolecules 46, 3125-3131 (2013)

148. "Tough interpenetrating Pluronic F127/polyacrylic acid hydrogels"
T. Baskan, D.C. Tuncaboylu, O. Okay. Polymer 54, 2979-2987 (2013)

147. "Macroporous silk fibroin cryogels."
F. Ak, Z. Oztoprak, I. Karakutuk, O. Okay, Biomacromolecules 14, 719-727 (2013)

146. "Self-healing hydrogels formed in catanionic surfactant solutions."
G. Akay, A. Hassan-Raeisi, D.C. Tuncaboylu, N. Orakdogen, S. Abdurrahmanoglu, W. Oppermann, O. Okay, Soft Matter 9, 2254-261 (2013)

145. "Swelling behavior of physical and chemical DNA hydrogels."
P. Karacan P, H. Cakmak, O. Okay, J. Appl. Polym. Sci. 128, 3330-3337 (2013)

144. "Ethidium bromide binding to DNA cryogels."
P. Karacan, O. Okay, *React. Funct. Polym.* 73, 442-450 (2013)
143. "Structure optimization of self-healing hydrogels formed via hydrophobic interactions."
D. C. Tuncaboylu, A. Argun, M. Sahin, M. Sari, O. Okay, *Polymer* 53 (24), 5513-5522 (2012)
142. "Dynamics and large strain behavior of self-healing hydrogels with and without surfactants."
D. C. Tuncaboylu, M. Sahin, A. Argun, W. Oppermann, O. Okay, *Macromolecules* 45 (4), 1991-2000 (2012)
141. "Diepoxide-triggered conformational transition of silk fibroin: Formation of hydrogels."
I. Karakutuk, F. Ak, O. Okay, *Biomacromolecules* 13 (4), 1122-1128 (2012)
140. "Tough and self-healing hydrogels formed via hydrophobic interactions."
D. C. Tuncaboylu, M. Sari, W. Oppermann, O. Okay, *Macromolecules* 44, 4997-5005 (2011)
139. "Macroporous, responsive DNA cryogel beads."
N. Orakdogen, P. Karacan, O. Okay, *React. Funct. Polym.* 71, 782-790 (2011)
138. "DNA hydrogels: New functional soft materials."
O. Okay, *J. Polym. Sci. B: Polymer Phys.* 49, 551-556 (2011)
137. "Solution cross-linked natural rubber (NR) / clay aerogel composites."
T. Pojanavaraphan, L. Liu, D. Ceylan, O. Okay, R. Magaraphan, D. A. Schiraldi, *Macromolecules* 44, 923-931 (2011)
136. "Dodecyl methacrylate as a crosslinker in the preparation of tough polyacrylamide hydrogels."
S. Abdurrahmanoglu, M. Cilingir, O. Okay, *Polymer* 52, 694-699 (2011)
135. "Self-oscillating pH-responsive cryogels as possible candidates of soft materials for generating mechanical energy"
C. Bilici, S. Karayel, T.T. Demir, O. Okay, *J. Appl. Polym. Sci.* 118, 2981-2988 (2010)
134. "Macroporous rubber gels as reusable sorbents for the removal of oil from surface waters"
I. Karakutuk, O. Okay, *React. Funct. Polym.* 70, 585-595 (2010)
133. "Evidence of strain hardening in DNA gels"
N. Orakdogen, B. Erman, O. Okay, *Macromolecules* 43 (3), 1530-1538 (2010)
132. "Effect of nanoscale interactions on the rheological behavior of polymer – clay nanocomposite hydrogels"
S. Abdurrahmanoglu, O. Okay, *J. Appl. Polym. Sci.* 116, 2328-2335 (2010)
131. "Hierarchically macroporous cryogels of polyisobutylene and silica nanoparticles"

D.C. Tuncaboylu, O. Okay, Langmuir 26 (10), 7574–7581 (2010)

130. “Design of high-toughness polyacrylamide hydrogels by hydrophobic modification”
S. Abdurrahmanoglu, V. Can, O. Okay, Polymer 50, 5449-5455 (2009)

129. “Formation of hydrogels by simultaneous denaturation and cross-linking of DNA”
F. Topuz, O. Okay, Biomacromolecules 10, 2652-2661 (2009)

128. “Preparation and characterization of single-hole macroporous organogel particles of high toughness and superfast responsivity”

D.C. Tuncaboylu, O. Okay O, Eur. Polym. J. 45 (7), 2033-2042 (2009)

127. “Evaluation of butyl rubber as sorbent material for the removal of oil and polycyclic aromatic hydrocarbons from seawater”

D. Ceylan, S. Dogu, B.Karacik, S.D. Yakan, O.S. Okay, O. Okay, Environ. Sci. Technol. 43 (10), 3846-3852 (2009)

126. “Macroporous hydrogel beads of high toughness and superfast responsivity”

F. Topuz, O. Okay, React. Funct. Polym. 69, 273-280 (2009)

125. “Collapse of acrylamide-based polyampholyte hydrogels in water”

S. Dogu, M. Kilic, O. Okay, J. Appl. Polym. Sci. 113, 1375-1382 (2009)

124. "Production of macroporous reusable rubber sorbent for removal organic pollutants from water" (Organik kirleticilerin sulardan uzaklaştırılması için makrogözenekli, tekrar kullanılabilir kauçuk sorbent üretimi)

O. Okay, I. Karakutuk, D. Ceylan, O.S. Okay,
T. C. Patent, TR200909456 (2009)

123. “General properties of hydrogels”

O. Okay, in G. Gerlach and K.-F. Arndt, eds., Hydrogel sensors and actuators, Springer Series on Chemical Sensors and Biosensors, Vol. 6, pp. , Springer, 2009. pdf

122. “Production of macroporous polymeric materials by phase separation polymerization”

O. Okay, in B. Mattiasson, A. Kumar, and I. Y. Galaev, eds., Macroporous polymers: Production, properties and biotechnological/biomedical application, CRC Press, Taylor and Francis Group, Boca Raton, FL, 2009.

121. “Rheological behavior of responsive DNA hydrogels”

F. Topuz, O. Okay, Macromolecules 41, 8847-8854 (2008)

120. “Homogeneous poly(acrylamide) hydrogels made by large size, flexible dimethacrylate crosslinkers”

S. Abdurrahmanoglu, O. Okay, Macromolecules 41, 7759-7761 (2008)

119. “Tough organogels based on polyisobutylene with aligned porous structures”

S. Dogu, O. Okay, Polymer 49, 4626-4634 (2008)

118. "Formation of macroporous poly(acrylamide) hydrogels in DMSO/water mixture: Transition from cryogelation to phase separation copolymerization" M. M. Ozmen, O. Okay, *React. Funct. Polym* 68, 1467-1475 (2008)
117. "Preparation of Homogeneous Hydrogels by Controlling the Crosslinker Reactivity and Availability" S. Abdurrahmanoglu, O. Okay, *J. Macromol. Sci. A: Pure and Appl. Chem.* 45, 769-775 (2008)
116. "Equilibrium swelling behavior and elastic properties of polymer-clay nanocomposite hydrogels" S. Abdurrahmanoglu, V. Can, O. Okay, *J. Appl. Polym. Sci.* 109, 3714-3724 (2008)
115. "Preparation of macroporous poly(acrylamide) hydrogels in DMSO/water mixture at subzero temperatures" M.M. Ozmen, M.V. Dinu, O. Okay, *Polymer Bull.* 60, 169-180 (2008)
114. "Macroporous polyisobutylene gels: A novel tough organogel with superfast responsivity" D. Ceylan, O. Okay, *Macromolecules* 40, 8742-8749 (2007)
113. "Unusual swelling behavior of polymer-clay nanocomposite hydrogels" V. Can, S. Abdurrahmanoglu, O. Okay, *Polymer* 48, 5016-5023 (2007)
112. "Preparation of homogeneous polyacrylamide hydrogels by free-radical crosslinking copolymerization" E. A. Kuru, N. Orakdogen, O. Okay, *Eur. Polym. J.* 43, 2913-2921 (2007)
111. "Preparation of Macroporous Acrylamide-based Hydrogels: Cryogelation under Isothermal Conditions" M. M. Ozmen, M. V. Dinu, E. S. Dragan, O. Okay, *J. Macromol. Sci. A: Pure and Appl. Chem.* (2007)
110. "Polyacrylamide - clay nanocomposite hydrogels: Rheological and light scattering characterization" O. Okay, and W. Oppermann, *Macromolecules* 40, 3378-3387 (2007)
109. "Macroporous hydrogels from smart polymers", O. Okay, in B. Mattiasson and I. Galaev, eds., *Smart Polymers: Production, Study and Application in Biotechnology and Biomedicine*, 2nd edition, pp. 269-299, CRC Press, Taylor and Francis, Boca Raton, FL, 2007.
108. "Influence of the initiator system on the spatial inhomogeneity in acrylamide-based hydrogels" N. Orakdogen N, and O. Okay, *J. Appl. Polym. Sci.* 103, 3228-3237 (2007)
107. "Freezing as a path to built macroporous structures: Superfast responsive polyacrylamide hydrogels"

M. V. Dinu, M. M. Ozmen, E. S. Dragan, and O. Okay, Polymer 48, 195-204 (2007)

106. "Network Development in Mixed Step-Chain Growth Thiol-Vinyl Photopolymerizations"
S.K. Reddy, O. Okay, and C.N. Bowman, Macromolecules 39, 8832-8843 (2006)

105. "Preparation of novel macroporous sorbents and use of them for the removal of oil spills from surface waters" (Petrol döküntülerinin yüzey sularından uzaklaştırılması için yeni bir makrogözenekli sorbent üretimi ve uygulaması)

O. Okay, and D. Ceylan,
T. C. Patent, TR20070001790 20070321 (2007)

104. "Correlation between crosslinking efficiency and spatial inhomogeneity in poly(acrylamide)hydrogels"

N. Orakdogen, and O. Okay, Polymer Bulletin 57, 631-641 (2006)

103. "Superfast responsive ionic hydrogels: Effect of the monomer concentration"

M.M. Ozmen, and O. Okay, J. Macromol. Sci. A: Pure and Appl. Chem. 43, 1215-1225 (2006)

102. "Phase transition of acrylamide-based polyampholyte gels in water"

D. Ceylan, V. Can, and O. Okay, J. Macromol. Sci. A: Pure and Appl. Chem. 43, 1635-1649 (2006)

101. "Swelling-deswelling kinetics of poly(acrylamide) hydrogels and cryogels"

D. Ceylan, M.M. Ozmen, and O. Okay, J. Appl. Polym. Sci. 99, 319-325 (2006)

100. "Effect of initial monomer concentration on the equilibrium swelling and elasticity of hydrogels"

N. Orakdogen, and O. Okay, Eur. Polym. J. 42 (2006)

99. "Swelling-deswelling kinetics of poly(N-isopropylacrylamide) hydrogels formed in PEG solutions"

Y. Dogu, and O. Okay, J. Appl. Polym. Sci. 99, 37-44 (2006)

98. "Reentrant conformation transition in poly(N,N-dimethylacrylamide) hydrogels in water-organic solvent mixtures"

N. Orakdogen, and O. Okay, Polymer 47, 561-568 (2006)

97. "Suppression of inhomogeneities in hydrogels formed by free-radical crosslinking copolymerization"

N. Orakdogen, M.Y. Kizilay, and O. Okay, Polymer 46, 11407-11415 (2005)

96. "Superfast responsive ionic hydrogels with contrallable pore size"

M.M. Ozmen, and O. Okay, Polymer 46, 8119-8127 (2005)

95. "Shake gels based on Laponite-PEO mixtures: Effect of polymer molecular weight"

V. Can, and O. Okay, Designed Monomers Polymers 8, 453-462 (2005)

94. "Molecular weight development during thiol-ene photopolymerizations"
O. Okay, S.K. Reddy, and C.N. Bowman, *Macromolecules* 38, 4501-4511 (2005)
93. "Kinetic modeling of thiol-ene reactions with both step and chain growth aspects"
O. Okay, and C.N. Bowman, *Macromol. Theory Simul.* 14, 267-277 (2005)
92. "Spatial inhomogeneity in poly(acrylic acid) hydrogels"
Yazici, and O. Okay, *Polymer* 46, 2595-2602 (2005)
91. "Effect of spatial gel inhomogeneity on the elastic modulus of strong polyelectrolyte hydrogels"
Ozdogan, and O. Okay, *Polymer Bull.* 54, 435-442 (2005)
90. "Non-Gaussian elasticity of poly(2-acrylamido-2-methylpropane sulfonic acid) gels"
M.M. Ozmen, and O. Okay, *Polymer Bull.* 52, 83-90 (2004)
89. "Swelling, elasticity and spatial inhomogeneity of poly(N,N-dimethylacrylamide) hydrogels formed at various polymer concentrations"
N. Gundogan, O. Okay and W. Oppermann, *Macromol. Chem. Phys.* 205, 814-823 (2004)
88. "Effect of swelling on spatial inhomogeneity in poly(acrylamide) gels formed at various monomer concentrations"
M.Y. Kızılay, and O. Okay, *Polymer* 45, 2576-2576 (2004)
87. "Swelling and elasticity of poly(N-isopropylacrylamide-co-4-vinylbenzenesulfonic acid sodium salt) hydrogels"
N. Gundogan, D. Melekaslan, and O. Okay, *J. Appl. Polym. Sci.* 94, 135-141 (2004)
86. "Minimization of spatial inhomogeneity in polystyrene gels formed by free-radical mechanism"
H. Cerid, and O. Okay, *Eur. Polym. J.* 40, 579-587 (2004)
85. "Swelling and elasticity of hydrogels based on a poly(ethylene oxide) macroinimer"
D. Melekaslan, F. Kasapoglu, K. Ito, Y. Yagci, and O. Okay, *Polymer International* 53, 237-242 (2004)
84. "Non-Gaussian elasticity of swollen poly(N-isopropylacrylamide) gels at high charge densities"
N. Gundogan, D. Melekaslan, and O. Okay, *Eur. Polym. J.* 39, 2209-2216 (2003)
83. "Effect of hydrolysis on spatial inhomogeneity in poly(acrylamide) gels of various crosslink densities"
M.Y. Kızılay, and O. Okay, *Polymer* 44, 5239-5250 (2003)
82. "Elasticity of poly(acrylamide) gel beads"
D. Melekaslan, N. Gundogan, and O. Okay, *Polymer Bull.* 50, 287-294 (2003)

81. "Swelling behavior of strong polyelectrolyte poly(N-t-butyl acrylamide-co-acrylamide) hydrogels"
M.M. Ozmen, and O. Okay, Eur. Polym. J. 39, 877-886 (2003)
80. "Effect of initial monomer concentration on spatial inhomogeneity in poly(acrylamide) gels"
M.Y. Kızılay, and O. Okay, Macromolecules 36, 6856-6862 (2003)
79. "Swelling and elasticity of poly(N-isopropylacrylamide) gels immersed in the melt of poly(ethylene glycol) chains"
D. Melekaslan, N. Gundogan, and O. Okay, Polymer 44, 2281-2288 (2003)
78. "Temperature dependent swelling behavior of ionic poly(N-isopropylacrylamide) gels in PEG solutions"
D. Melekaslan, and O. Okay, Polymer Bull. 49, 181-188 (2002)
77. "Temperature sensitive poly(N-t-butyl acrylamide-co-acrylamide) hydrogels: synthesis and swelling behavior"
V. Ozturk, and O. Okay, Polymer 43, 5017-5026 (2002)
76. "Rubber elasticity of poly(N-isopropylacrylamide) gels at various charge densities"
N. Gundogan, D. Melekaslan, and O. Okay, Macromolecules 35, 5616-5622 (2002)
75. "Macroporous poly(N-isopropylacrylamide) networks"
C. Sayil, and O. Okay, Polymer Bull. 48, 499-506 (2002)
74. "Swelling and mechanical properties of solution crosslinked poly(isobutylene) gels"
S. Durmaz, S. Fank, and O. Okay, Macromol. Chem. Phys. 203, 663-672 (2002)
73. "Real time temperature and photon transmission measurements for monitoring phase separation during the formation of poly(N-isopropylacrylamide) gels"
S. Kara, O. Okay, and O. Pekcan, J. Appl. Polym. Sci. 86, 3589- 3595 (2002)
72. "Volume phase transition of polymer networks in polymeric solvents"
O. Okay, and N. Gundogan, Macromol. Theory Simul. 11, 287-292 (2002)
71. "Reentrant phase transition of poly(N-isopropylacrylamide) gels in polymer solutions: Thermodynamic analysis"
N. Gundogan, and O. Okay, J. Appl. Polym. Sci. 85, 801-813 (2002)
70. "Charge density dependence of elastic modulus of strong polyelectrolyte hydrogels"
O. Okay, and S. Durmaz, Polymer 43, 1215-1221 (2002)
69. "Swelling-shrinking hysteresis of poly(N-isopropyl)acrylamide) gels in sodium dodecylbenzenesulfonate solutions"
C. Sayil, and O. Okay, J. Appl. Polym. Sci. 83, 1228-1232 (2002)

68. "Inhomogeneities in poly(acrylamide) gels: Position-dependent elastic modulus measurements"
S. Durmaz, and O. Okay, Polymer Bull. 46, 409 - 418 (2001)
67. "Macroporous poly(N-isopropyl) acrylamide networks: Formation conditions"
C. Sayil, and O. Okay, Polymer 42, 7639 - 7652 (2001)
66. "Elastic behavior of solution crosslinked poly(isobutylene) gels under large compression"
M.N. Ince, B. Erman, O. Okay, and S. Durmaz, Polymer 42, 3771-3777 (2001)
65. "Reentrant phase transition of strong polyelectrolyte poly(N-isopropylacrylamide) gels in PEG solutions"
D. Melekaslan, and O. Okay, Macromol. Chem. Phys. 202, 304 - 312 (2001)
64. "Superabsorbent materials based on butyl rubber: Process for making said materials and use of them"
B. Erman, O. Okay, and S. Durmaz,
International Patent, Patent Number WO0148042 A1, AU2470800, Publication Date: 2001-07-05
63. "In situ photon transmission technique for monitoring phase separation in real time during gelation"
S. Kara, O. Okay, and O. Pekcan, Polymer Bull. 45, 281-285 (2000)
62. "The effect of preparation temperature on the swelling behavior of poly(N-isopropylacrylamide) gels"
C. Sayil, and O. Okay, Polymer Bull. 45, 175-182 (2000)
61. "Swelling of strong polyelectrolyte hydrogels in polymer solutions: Effect of ion pair formation on the polymer collapse"
D. Melekaslan, and O. Okay, Polymer 41, 5737-5747 (2000)
60. "Macroporous Copolymer Networks"
O. Okay, Progress in Polymer Science 25, 711-779 (2000)
59. "Solution crosslinked poly(isobutylene) gels: synthesis and swelling behavior"
O. Okay, S. Durmaz, and B. Erman, Macromolecules 33, 4822-4827 (2000)
58. "Acrylamide / 2-acrylamido- 2- methyl propane sulfonic acid sodium salt -based hydrogels: Synthesis and characterization"
S. Durmaz, and O. Okay, Polymer 41, 3693-3704 (2000)
57. "Gel growth in free-radical crosslinking copolymerization: Effect of inactive gel radicals"
O. Okay, Macromol. Theory Simul. 9, 354-361 (2000)
56. "Phase separation during the formation of poly(acrylamide) hydrogels"
S. Durmaz, and O. Okay, Polymer 41, 5729-5735 (2000)

55. "Swelling Behavior of Poly(acrylamide-co-sodium acrylate) Hydrogels in Aqueous Salt Solutions: Theory versus Experiments"
O. Okay, and S.B. Sariisik, Eur. Polym. J. 36, 393-399 (2000)
54. "Heterogeneities during the formation of poly(sodium acrylate) hydrogels"
O. Okay, Y. Yilmaz, D. Kaya, M. Keskinel, and O. Pekcan, Polymer Bull. 43, 425-431 (1999)
53. "Observation of critical opalescence in free radical crosslinking copolymerization of styrene and divinylbenzene by fluorescence method"
O. Pekcan, D. Kaya, and O. Okay, Eur. Polym. J. 35, 2025-2029 (1999)
52. "Formation of Macroporous Styrene - Divinylbenzene Copolymer Networks: Theory versus Experiments"
O. Okay, J. Appl. Polym. Sci. 74, 2181-2195 (1999)
51. "Free-radical Crosslinking Copolymerization of Styrene and Divinylbenzene: Real Time Monitoring of the Gel Effect Using Fluorescence Probe"
O. Okay, D. Kaya, and O. Pekcan, Polymer 40, 6179-6187 (1999)
50. "Phase Separation in Free-Radical Crosslinking Copolymerization: Formation of Heterogeneous Polymer Networks"
O. Okay, Polymer 40, 4117-4129 (1999)
49. "Pore memory of Macroporous Styrene -Divinylbenzene Copolymer Beads"
E. Erbay, and O. Okay, J. Appl. Polym. Sci. 71, 1055-1062 (1999)
48. "Macroporous Styrene - Divinylbenzene Copolymers: Formation of Stable Porous Structures during the Copolymerization"
E. Erbay, and O. Okay, Polymer Bull. 41, 379-385 (1998)
47. "Swelling Behavior of Anionic Acrylamide-based Hydrogels in Aqueous Salt Solutions: Comparison of Experiment with Theory"
O. Okay, S.B. Sariisik, and S.D. Zor, J. Appl. Polym. Sci. 70, 567-575 (1998)
46. "Heterogeneities in polyacrylamide gels immersed in acetone- water mixtures"
O. Okay, and U. Akkan, Polymer Bull. 41, 363-370 (1998)
45. "Swelling of polyacrylamide gels in polyacrylamide solutions"
N. Kayaman, O. Okay, and B.M. Baysal, J. Polym. Sci., Polym. Phys. Ed., 36, 1313-1320 (1998)
44. "Effects of Cyclization and Electrostatic Interactions on the Termination Rate of Macroradicals in Free-Radical Crosslinking Copolymerization"
M. Keskinel, and O. Okay, Polymer Bull. 40, 491- 498 (1998)
43. "Microgels- intramolecularly crosslinked macromolecules with a globular structure"
W. Funke, O. Okay, and B. Joos-Muller, Advances in Polymer Science 136,139-234 (1998)

42. "Structure and protein separation efficiency of poly(N-isopropylacrylamide) gels: Effect of synthesis conditions"
N. Kayaman, D. Kazan, A. Erarslan, O. Okay, and B.M. Baysal, *J. Appl. Polym. Sci.* 67, 805-814 (1998).
41. "Phase transition of hydrolyzed polyacrylamide gels in PEG solutions"
N. Kayaman, O. Okay, and B.M. Baysal, *Turk. J. Chem.* 21, 346-352 (1997)
40. "Effects of cyclization and pendant vinyl group reactivity on the swelling behavior of polyacrylamide gels"
O. Okay, N.K. Balimtas, and H.J. Naghash, *Polymer Bull.* 39, 233-239 (1997)
39. "Swelling of polyacrylamide gels in aqueous solutions of ethylene glycol oligomers"
N. Kayaman, O. Okay, and B.M. Baysal, *Polymer Gels and Networks* 5, 339-356 (1997)
38. "Real time monitoring of polymerization rate of methyl methacrylate using fluorescence probe"
O. Pekcan, Y. Yilmaz, and O. Okay, *Polymer* 38, 1693-1698 (1997)
37. "Gel formation by chain crosslinking photopolymerization of methyl methacrylate and ethylene glycol dimethacrylate"
H.J. Naghash, O. Okay, and Y. Yagci, *Polymer* 38, 1187-1196 (1997)
36. "Phase transition of polyacrylamide gels in PEG solutions"
N. Kayaman, O. Okay, and B.M. Baysal, *Polymer Gels and Networks* 5, 167-184 (1997)
35. "Critical properties for gelation in free-radical crosslinking polymerization"
O. Okay, *Turk. J. Phys.* 20, 27-32 (1996)
34. "Determination of reaction activation energy during gelation in free-radical crosslinking copolymerization using the steady-state fluorescence method"
O. Pekcan, Y. Yilmaz, and O. Okay, *J. Appl. Polym. Sci.* 61, 2279-2284 (1996)
33. "Size distribution of polymers during the photoinitiated free-radical copolymerization of methyl methacrylate and ethylene glycol dimethacrylate"
H.J. Naghash, O. Okay, and Y. Yagci, *Polymer Bull.* 37, 207-213 (1996)
32. "Kinetics of emulsifier-free emulsion polymerization of methyl methacrylate"
T. Tanrisever, O. Okay, and I.C. Sonmezoglu, *J. Appl. Polym. Sci.* 61, 485-493 (1996)
31. "In situ fluorescence experiments to test the reliability of random bond and site bond percolation models during sol-gel transition in free-radical crosslinking copolymerization"
O. Pekcan, Y. Yilmaz, and O. Okay, *Polymer* 37, 2049-2053 (1996)
30. "Formation and structure of polyacrylamide gels"
H.J. Naghash, and O. Okay, *J. Appl. Polym. Sci.* 60, 971-979 (1996)

29. "Biyolojik çözeltilerin konsantre edilmesi için sıcaklık duyarlı polimerik jel kürecikleri üretimi"
N. Kayaman, O. Okay, D. Kazan, A. Erarslan, and B.M. Baysal,
T. C. Patent No: TR9600295 B, (1996)
28. "Effect of diluents on the porous structure of crosslinked polymethyl methacrylate beads"
Kucuk, A. Kuyulu, and O. Okay, Polymer Bull. 35, 511-516 (1995)
27. "Critical properties for gelation in free-radical crosslinking copolymerization"
O. Okay, H.J. Naghash, and O. Pekcan, Macromol. Theory & Simul. 4, 967-981 (1995)
26. "Free radical crosslinking copolymerization. Effect of cyclization on diffusion-controlled termination at low conversion"
O. Okay, H.J. Naghash, and I. Capek, Polymer 36, 2413-2419 (1995)
25. "Cyclization and Reduced Pendant Vinyl Group Reactivity during the Free-radical Crosslinking Polymerization of 1,4-Divinylbenzene"
O. Okay, M. Kurz, K. Lutz, and W. Funke, Macromolecules 28, 2728 - 2737 (1995)
24. "Gel Formation in Free-radical Crosslinking Copolymerization"
H.J. Naghash, O. Okay, and H. Yildirim, J. Appl. Polym. Sci. 56, 477 - 483 (1995)
23. "Pendant Vinyl Group Reactivity during the Free-radical Copolymerization of Methyl Methacrylate and Ethylene Glycol Dimethacrylate"
O. Okay, and H.J. Naghash, Polymer Bull. 33, 665 - 672 (1994)
22. "Fluorescence Technique to Study Sol-Gel Transition in the Free-radical Crosslinking Copolymerization of Methyl Methacrylate and Ethylene Glycol Dimethacrylate"
O. Pekcan, Y. Yilmaz, and O. Okay, Chem. Phys. Lett. 229, 537-540 (1994)
21. "Kinetics of Gelation in Free-radical Crosslinking Copolymerization"
O. Okay, Polymer 35, 2613 - 2618 (1994)
20. "Gel Properties in Free-radical Crosslinking Copolymerization: A Kinetic Approach"
O. Okay, Makromol. Chem. Theory and Simul. 3, 417 - 427 (1994)
19. "Kinetic Modelling of Network Formation and Properties in Free-radical Copolymerization"
O. Okay, Polymer 35, 796 - 807 (1994)
18. "Intramolecularly Crosslinked Macromolecules - Formation and Structure, Characterization and Particle Properties"
W. Funke, H. Bauer, B. Joos, J. Kaczun, B. Kleiner, U. Leibelt, and O. Okay, Polymer International 30, 519 - 523 (1993)
17. "Synthesis and Formation Mechanism of Porous 2-Hydroxyethyl Methacrylate - Ethylene Glycol Dimethacrylate Copolymer Beads"
O. Okay, and C. Gurun, J. Appl. Polym. Sci. 46, 401-410 (1992)

16. "Formation and Structural Characteristics of Porous Ethylene Glycol Dimethacrylate Networks"
O. Okay, and C. Gurun, *J. Appl. Polym. Sci.* 46, 421-434 (1992)
15. "Steric Stabilization of Reactive Microgels from 1,4-Divinylbenzene"
O. Okay, and W. Funke, *Makromol. Chem. Rapid Commun.* 11, 583-587 (1990)
14. "Conditions of Microgel Formation in the Anionic Polymerization of 1,4-Divinylbenzene"
O. Okay, and W. Funke, *Makromol. Chem.* 191, 1565-1573 (1990)
13. "Anionic Dispersion Polymerization of 1,4-Divinylbenzene"
O. Okay, and W. Funke, *Macromolecules* 23, 2623-2628 (1990)
12. "Formation and Structural Characteristics of Loosely Crosslinked Styrene-Divinylbenzene Networks"
O. Okay, *Makromol. Chem.* 189, 2201-2217 (1988)
11. "Styrene-Divinylbenzene Copolymers VII. Stability of the Porous Structures Formed in Toluene-Cyclohexanol Mixtures"
O. Okay, *Angew. Makromol. Chem.* 157, 15-21 (1988)
10. "Styrene-Divinylbenzene Copolymers VI. Porosity Formation in the Presence of Toluene-Cyclohexanol Mixtures as Inert Diluents"
O. Okay, *Angew. Makromol. Chem.* 157, 1-13 (1988)
9. "Styrene-Divinylbenzene Copolymers V. Inhomogeneity in the Structure and Average Degree of Swelling"
O. Okay, *Angew. Makromol. Chem.* 153, 125-134 (1987)
8. "Porous Maleic Anhydride-Styrene-Divinylbenzene Copolymer Beads"
O. Okay, *J. Appl. Polym. Sci.* 34, 307-317 (1987)
7. "Styrene-Divinylbenzene Copolymers IV. Porosity Changes During Chloromethylation"
O. Okay, *Angew. Makromol. Chem.* 143, 209-214 (1986)
6. "Heterogeneous Styrene-Divinylbenzene Copolymers. Stability Conditions of the Porous Structures"
O. Okay, *J. Appl. Polym. Sci.* 32, 5533-5542 (1986)
5. "Heterogeneous Styrene-Divinylbenzene Copolymers in Collapsed and Reexpanded States"
O. Okay, and T.I. Balkas, *J. Appl. Polym. Sci.* 31, 1785-1795 (1986)
4. "Phase Separation in the Synthesis of Styrene-Divinylbenzene Copolymers with Di-2-ethylhexyl Phthalate as Diluent"
O. Okay, E. Soner, A. Gungor, and T.I. Balkas, *J. Appl. Polym. Sci.* 30, 2065-2074 (1985)

3. "Boron Pollution in the Simav River, Turkey and Various Methods of Boron Removal"
O. Okay, H. Guclu, E. Soner, and T.I. Balkas, Water Research 19, 857 - 862 (1985)
2. "Stark basische Ionenaustauscher auf Guanidiniumsalz-Formaldehyd-Aceton-Basis"
O. Okay, and H. Schindlbauer, Angew. Makromol. Chem. 127, 203-209 (1984)
1. "Wasserlösliche Kationisch Modifizierte Copolymeren mit Acrylamid"
O. Okay, and H. Schindlbauer, Angew. Makromol. Chem. 122, 21-31 (1984)

BOOKS

2. "Self-Healing and Self-Recovering Hydrogels"
C. Creton, O. Okay (eds.) Advances in Polymer Science 285, Springer, 2020.
 1. "Polymeric Cryogels: Macroporous Gels with Remarkable Properties"
O. Okay (ed.) Advances in Polymer Science 263, Springer, 2014.
- .

BOOK CHAPTERS

3. "General properties of hydrogels"
O. Okay, in G. Gerlach and K.-F. Arndt, eds., Hydrogel sensors and actuators, Springer Series on Chemical Sensors and Biosensors, Vol. 6, pp. , Springer, 2009.
2. "Production of macroporous polymeric materials by phase separation polymerization"
O. Okay, in B. Mattiasson, A. Kumar, and I. Y. Galaev, eds., Macroporous polymers: Production, properties and biotechnological/biomedical application, CRC Press, Taylor and Francis Group, Boca Raton, FL, 2009.
1. "Macroporous hydrogels from smart polymers",
O. Okay, in B. Mattiasson and I. Galaev, eds., Smart Polymers: Production, Study and Application in Biotechnology and Biomedicine, 2nd edition, pp. 269-299, CRC Press, Taylor and Francis, Boca Raton, FL, 2007.

PATENTS

6. Hexadecyl acrylate-based photo-curable resins for 4D printing of body temperature responsive hydrogels with shape-memory and self-healing properties.
Inventors: T. Abdullah, G. Aydin, O. Okay. Applicant: Istanbul Technical University. Publ. No WO/2024/263142, Publ. Date 26.12.2024, International Appl. No. PCT/TR2024/050687, International Filing Date 4.06.2024

5. "Production of self-healable and shape memory butyl rubber" (*Kendi kendini onarabilen ve şekil hafızalı butil kauçuk üretimi*)

O. Okay, C. Bilici,

T. C. Patent Basvurusu, 18/06/2019 (2019)

4. "Production of macroporous reusable rubber sorbent for removal organic pollutants from water" (*Organik kirlenticilerin sulardan uzaklaştırılması için makrogözenekli, tekrar kullanılabilir kauçuk sorbent üretimi*)

O. Okay, I. Karakutuk, D. Ceylan, O.S. Okay,

T. C. Patent, TR200909456 (2009)

3. "Preparation of novel macroporous sorbents and use of them for the removal of oil spills from surface waters" (*Petrol döküntülerinin yüzey sularından uzaklaştırılması için yeni bir makrogözenekli sorbent üretimi ve uygulaması*)

O. Okay, and D. Ceylan,

T. C. Patent, TR20070001790 20070321 (2007)

2. "Biyolojik çözeltilerin konsantr edilmesi için sıcaklık duyarlı polimerik jel kürecikleri üretimi"

N. Kayaman, O. Okay, D. Kazan, A. Erarslan, and B.M. Baysal,

T. C. Patent No: TR9600295 B, (1996)

1. "Superabsorbent materials based on butyl rubber: Process for making said materials and use of them"

B. Erman, O. Okay, and S. Durmaz,

International Patent, Patent Number WO0148042 A1, AU2470800, Publication Date: 2001-07-05

OTHER PUBLICATIONS

12. A.M. C. Şengör, N. Görür, O. Okay, Türkiye Jeolojisinin Büyük Kaybı: Prof. Dr. Aral Okay (1953-2023). HBT, Sayı 418, 18.04.2024.

11. Okay, O., Kimya Bölümelerinin bilimsel başarısı, Cumhuriyet Bilim Teknik, Sayı 1050 (4.05.2007).

10. Okay, O., Olgun, H., Karakoc, F., Ayar, R., Okay, D., 21-23/04/2001 Hasandağı Tırmanışı MAM Gündem, Sayı 35, Mayıs-Haziran 2001, Sayfa 9-11 (GEZİ)

9. Kaya, D., Okay, O., Pekcan, Ö., Real Time Monitoring of the Gel Effect in Free-Radical Crosslinking Copolymerization of Styrene and Divinylbenzene Using Fluorescence Probe Turkish Journal of Physics 23, 179 (1999)

8. Pekcan, Ö., Yilmaz, Y., Okay, O., Fluorescence technique for studying the sol-gel transition in free-radical crosslinking copolymerization of methyl methacrylate and ethylene glycol dimethacrylate, abstract,

Turkish Journal of Physics 20, 70 (1996)

7. Okay, O., Teknoloji mi? Temel Arastirma mi?,
Cumhuriyet Bilim Teknik, Sayi 359, sayfa 6, Subat 1994.
6. Okay, O., Experiments in Physical Chemistry,
Ders ve Laboratuvar Kitabi, Dogu Akdeniz Üniveritesi, Eylül 1991, 98 sayfa.
5. TÜBITAK MBEAE Kimya Müh. Aras. Böl., Waste water treatment and disposal studies NATO
TU - Waters, Progress reports, 1984 - 1985.
4. Okay, O., Güçlü, H., Birecikli, Ü., Emil, T., Pentaerititol üretimi” TÜBITAK MBEAE Yayın
No: 110, Kasim 1983, 28 sayfa.
3. Okay, O., Balkas, T., Jeotermal sulardan borun kimyasal yolla arindirilmasi,
TÜBITAK MBEAE Yayın No: 97, Subat 1983, 17 sayfa.
2. Okay, O., Herstellung von ionischen Polymeren auf Guanidinsalz - Formaldehyd / Aceton- und
auf Acrylamid-Basis, ihre Anwendung als Anionenaustauscher und Flockungshilfsmittel zur
Reinigung von Abwaessern,
Dissertation, Technische Universitaet Wien, 1981.
1. Okay, O., Die Einbaumöglichkeiten von Guanidin in Polymere und die Herstellung von
Ionenaustauschern auf Guanidinsalz-Formaldehyd-Basis,
Diplomarbeit, Technische Universitaet Wien, 1978.

NATIONAL / INTERNATIONAL PRESENTATIONS / POSTERS

200. E. Su, O. Okay, A Versatile Strategy to Fabricate Butyl Rubber Based Smart Materials. PNG 2022 Conference, Rome, Italy, June 2022.
199. O. Okay, E. Su, B. Tavsanli, O. Akca, C. Bilici, UV polymerization of n-octadecyl acrylate in butyl rubber: A versatile strategy to prepare self-healing and shape-memory polymers (invited). Uluslararası Katılımlı VIII. Polimer Bilim ve Teknoloji Kongresi. Malatya June 2022 (online)
198. O. Okay, B. Tavsanli, E. Su, O. Akca, C. Bilici. UV polymerization of n-octadecyl acrylate in butyl rubber: A versatile strategy to prepare smart IPNs at ambient temperature (invited). DoDyNet Conference, Crete, Greece May 2022
197. O. Okay, Kendini onaran şekil hafızalı hidrojeller, Süleyman Demirel Üniversitesi, Isparta, Nisan 2022 (online)
196. O. Okay, How to design both mechanically strong and self-healable hydrogels?, Seminar, KIT, Institut fuer Technische und Polymerchemie, January 2022
195. O. Okay, “Kendi kendini onarabilen malzemeler“ TÜBA Akademi konferansları, Rabii Medrese, Istanbul, October **2019**
194. O. Okay, “Smart hydrogels and cryogels in medicine“ (invited) 24th International Biomedical Science & Technology Symposium (Biomed), Cesme, Turkey, October **2019**
193. O. Okay, “Self-healable hydrogels and rubbers with shape-memory function via hydrophobic interactions“ (invited) 8th International Symposium on Speciaty Polymers, Karaganda, Kazakhstan, August **2019**

192. O. Okay, "Supramolecular polymeric gels and elastomers with self-healing and shape-memory functions" (invited) Colloidal, Macromolecular and Biological Gels II, Cork, Ireland, July **2019**
191. O. Okay, "Oil sorbents" (invited Pitch Deck presentation) 4th Science and Technology Exchange Program (STEP) – EISE meeting, Mucat, Oman, December **2018**
190. O. Okay, C. Bilici, S. Ide, "Supramolecular semi-crystalline hydrogels with shape-memory and self-healing functions" (invited) ULuslararası Katılımlı 7. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, September **2018**
189. O. Okay, "Akıllı polimer malzemeler" (davetli konuşma) Dicle Üniversitesi, Diyarbakır, June **2018**
188. O. Okay, C. Bilici, S. Ide, "Toughness improvement of semicrystalline hydrogels" (main lecture) 24th Polymer Network Group Meeting, Polymer Networks and Gels, PNG-2018, Prague, Czech Republic, June **2018**
187. O. Okay, A. Argun, U. Gulyuz, "Interfacing soft and hard materials with triple-shape-memory and self-healing functions" (invited) II. International Biomedical Engineering Congress, Girne, KKTC, May **2018**
186. O. Okay, "Bilim ve Kariyer" FMV İşık Lisesi, İspartakule, İstanbul, April **2018**
185. O. Okay, "Bilim ve Kariyer" Doğu Akdeniz Üniversitesi, Kariyer Haftası, Gazi Magosa, K.K.T.C, March **2018**
184. O. Okay, "Synthesis and Structure–Property Relationships of Cryogels" (invited) Porous and Powder Materials Symposium and Exhibitions, Kuşadası, September **2017**
183. O. Okay, "Supramolecular hydrogels formed via hydrophobic interactions" (invited) 15th International Conference on Advanced Materials, IUMRS-ICAM, Kyoto, Japan, August **2017**
182. O. Okay, "Hydrogels with self-healing and shape-memory functions tuned by hydrophobic interactions" 46th World Chemistry Congress, São Paulo, Brasil, July **2017**
181. O. Okay, "Polimerik kriyojellerde yapı – özellik ilişkileri" (invited) 6. Fiziksel Kimya Kongresi, Dedeman Hotel, Zonguldak, May **2017**
180. O. Okay, "Kendi-kendini onarabilen, şekil-hafızalı yumuşak polimer malzemeler", TÜBA Üniversite Konferansları, Ege Üniversitesi Kimya Bölümü, İzmir, April **2017**
179. O. Okay, „Hidrofobik Etkileşimlerle Oluşmuş Kendini Onarabilen Hidrojeller“ (invited) 6. Ulusal Polimer Bilim ve Teknoloji Kongresi, Ankara, September **2016**
178. O. Okay, „Yeni Nesil Biyoyumlu Jeller ve Polimer İskeletleri“ 28.Uluslararası Kimya Kongresi“ (invited) Mersin, August **2016**
177. O. Okay, V. Can, Z. Kochovski, V. Reiter, N. Severin, M. Siebenbürger, B. Kent, J. Just, J.P. Rabe, M. Ballauff, "Nanoscale structure of self-healing hydrogels formed via hydrophobic interactions" (invited) World Polymer Congress, Istanbul, July **2016**
176. Arşın, A., Okay, O. "Nonionic double and triple network hydrogels". Polymer Networks Group Meeting, Stockholm, Sweden, June **2016** (lecture)
175. Su, E., Okay, O. "Supramolecular polyampholyte hydrogels formed via hydrophobic and ionic interactions". Polymer Networks Group Meeting, Stockholm, Sweden, June **2016** (poster)
174. Okay, O. "Nanoscale structure of self-healing hydrogels formed via hydrophobic interactions" Humboldt Universitaet, Physics Department, Adlershof, Berlin, November **2015**
173. Okay, O. "Supramolecular self-healing hydrogels based on synthetic and natural polymers" (keynote speaker) Helmholtz-Virtual Institute, Multifunctional Biomaterials for Medicine, Teltow; Berlin, September **2015**
172. Okay, O., Gulyuz, U., Bilici, C., Kurt, B. "Şekil-hafızalı, kendi kendini onarabilen akıllı polimer malzemeler (keynote speaker)"
27. Ulusal Kimya Kongresi, Çanakkale, Ağustos **2015**
171. Gulyuz, U., Okay, O." Sıcaklığa duyarlı kendi kendini onarabilen hidrojeller (bildiri)

27. Ulusal Kimya Kongresi, Çanakkale, Ağustos 2015

170. Yetişkin, B., Okay, O., "Mekanik dyanımı yüksek ipek fibroin kriyojelleri (poster)
27. Ulusal Kimya Kongresi, Çanakkale, Ağustos 2015

169. Okay, O. "Hydrogels with self-healing and shape-memory properties tuned by hydrophobic interactions" (seminar), Helmholtz Zentrum Berlin, Soft Matter and Functional Materials Institute, Berlin, Almanya, May 2015.

168. Okay, O. "Supramolecular self-healing hydrogels with shape-memory behavior" (keynote lecture), International Biomedical Engineering Congress, Girne, KKTC, March 2015.

167. Okay, O.. "Neden Kimya? Neden İTÜ Kimya?" İTÜ Kimya Kulübü, Ekim 2014

166. Okay, O.. "Synthesis and structure-property relationships for polymeric cryogels" (invited lecture)
248th ACS National Meeting, San Francisco, CA, August 2014

165. Okay, O.. "Hydrogels with self-healing and shape-memory properties tuned by hydrophobic interactions" (lecture)
248th ACS National Meeting, San Francisco, CA, August 2014

164. Okay, O. "Self-healing hydrogels with shape memory behavior via hydrophobic interactions" (lecture)
Bogazici Universitesi, İstanbul, May 2014

163. Okay, O. "Ekomalzemeler" (lecture)
Sürdürülebilir Ekosistem Günleri, SDKM, İTU, İstanbul, April 2014

162. Okay, O. "Polimer Jeller ve İstanbul Boğazını Petrol Döküntülerinden Kurtaracak Yeni Bir Sünger Malzeme" (lecture)
İstanbul Erkek Lisesi, İstanbul, January 2014

161. Okay, O. "Petrol döküntülerinin deniz ekosistemi ve atık sulardan uzaklaştırılması için tekra-kullanılabilir kauçuk sorbenti üretimi ve uygulaması" (invited)

17. Sıvı Hal Sempozyumu, Baltalimanı, İstanbul, December 2013

160. Okay, O. "Kimyada teknolojik gelişmeler" (lecture)
Güneşli Doğa Koleji, İstanbul, December 2013

159. Lozinsky, V.I., Okay, O. "What are the polymeric cryogels and how they are formed?" (invited)
13. Ukrainian Conference on Macromolecules, Kiev, Ukraine, October 2013

158. Ström, A., Schuster, E., Okay, O., Larsson, A. "Macroporous hyaluronan gels" (poster)
EPNOE 2013, Polysaccharides and polysaccharide-derived products, from basic science to applications, Nice, France, October 2013

157. Okay, O.. "Kendini onarabilen akıllı malzemeler" (invited)
Anadolu Üniversitesi, Eskişehir, May 2013

156. Okay, O.. "Formation of macroporous DNA and silk fibroin gels via cryogelation" (lecture)
245th ACS National Meeting, New Orleans, LA, April 2013

155. A. Hassan-Raeisi, O. Okay, W. Oppermann. "Dynamics in polyacrylamide hydrogels formed via hydrophobic associations" (poster)
Makromolekulares Kolloquium Freiburg, February 2013

154. Okay, O.. "Kimya'daki Teknolojik Gelişmeler ve Önceliklerimiz" (invited)
TÜBİTAK-BİDEB 2229 Eğitim Çalıştayı, Çanakkale, February 2013

153. Okay, O.. "Self-healing hydrogels and silk cryogels via hydrophobic associations" (lecture)
A.N. Nesmeyanov Institute of Organoelement Compounds, Moscow, Russia, November 2012

152. Okay, O.. " Kendi Kendini Onarabilen Hidrojellerin Tasarımı" (Bahattin Baysal Özel Oturumu, bildiri)
26. Ulusal Kimya Kongresi, Muğla, October 2012

151. Bilici, C., Okay, O.. "Kristalin Bölgeler İçeren Hidrojeller" (bildiri)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

150. Baskan, T., Tuncaboylu, D. C., Topcu, G., Okay, O.. "İlaç Taşıyıcı Sistemlerde Kullanılabilecek pH ve Sıcaklığa Duyarlı Hidrojellerin Sentezi ve Karakterizasyonu" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

149. Oztoprak, Z., Karakutuk, I., Okay, O.. " İpek Fibroin Jellerinin Kuvvet Altında Sertleşmesi" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

148. Ak, F., Karakutuk, I., Okay, O.. "İpek Fibroin Jellerinin Mekanik Özellikleri" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

147. Akay, G., Tuncaboylu, D.C., Abdurrahmanoğlu, S., Orakdögen, N., Oppermann, W., Okay, O.. "Anyonik/Katyonik Misel Karışımlarında Kendini-Onarabilen Hidrofobik Modifiye Hidrojellerin Sentezi" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

146. Cakmak, H., Okay, O. "Fiziksel ve Kimyasal Çapraz Bağlı DNA Hidrojelleri" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

145. Sahin, M., Okay, O. "Hidrofobik Modifiye Poliakrilamid Jellerinde Hidrofobik Blok Uzunluğunun Reolojik ve Mekanik Özelliklere Etkisi" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

144. Argun, A., Tuncaboylu, D. C., Okay, O. " Hidrofobik Modifiye Poliakrilamid Hidrojellerinin Mekanik Özelliklerine Yüzey Aktif Madde Konsantrasyonunun Etkisi" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

143. Altun, B. U., Okay, O. " Statik Işık Saçınım Tekniği ile Poliakrilamid Jellerinde İnhomojenitenin İncelenmesi" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

142. Yildiz, E., Okay, O. " Poliakrilamid Hidrojellerinin Sentezi ve Karakterizasyonu" (poster)

26. Ulusal Kimya Kongresi, Muğla, October **2012**

141. Okay, O., Design of macroporous gels with various architectures. Korea Institute of Science and Technology (KIST), Seoul, South Korea, September **2012**. (lecture).

140. Akay, G., Tuncaboylu, D.C., Abdurrahmanoğlu, S., Orakdögen, N., Oppermann, W., Okay, O. Hydrophobically associated self-healing hydrogels formed in catanionic surfactant solutions. Polymeric and Self-assembled Hydrogels, London, September **2012**. (poster).

139. Karakutuk, I., Ak, F., Oztoprak, Z., Okay, O., İpek fibroin hidrojelleri ve kriyojelleri. 4. Ulusal Polimer Kongresi, Çanakkale, September **2012**. (davetli konuşma).

138. Argun, A., Tuncaboylu, D. C., Okay, O., Hidrofobik modifiye poliakrilamid hidrojellerinin mekanik özelliklerine yüzey aktif madde konsantrasyonunun etkisi. 4. Ulusal Polimer Kongresi, Çanakkale, September **2012**. (poster).

137. Okay, O., Kendini onarabilen yumuşak malzemeler. 3. Fiziksel Kimya Günleri Kongresi, Balıkesir, July **2012**. (invited).

136. Tuncaboylu, D. C., Argun, A., Sahin, M., Oppermann, W., Okay, O., Self-healing hydrogels via hydrophobic associations. IUPAC MACRO2012 World Polymer Congress, Virginia Tech Campus, June **2012**. (lecture).

135. Argun, A., Tuncaboylu, D. C., Okay, O., Effect of surfactant concentration on the mechanical properties of hydrophobically modified polyacrylamide hydrogels. IUPAC MACRO2012 World Polymer Congress, Virginia Tech Campus, June **2012**. (poster).

134. Karacan, P., Okay, O., Synthesis and characterization of macroporous DNA hydrogels. IUPAC MACRO2012 World Polymer Congress, Virginia Tech Campus, June **2012**. (poster).

133. Okay, O. Akıllı polimerik malzemeler. Boğaziçi Üniversitesi Öğrencileri Kimya Sempozyumu 1, Mayıs **2012**.

132. Okay, O., Self-healing hydrogels formed via hydrophobic interactions. Mini-workshop, Chalmers University of Technology, Gothenburg, Sweden, December **2011**. (lecture).

131. Okay, O., DNA versus silk fibroin hydrogels. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, İTÜ, September **2011**. (lecture).
130. Argun, A., Tuncaboylu, D. C., Okay, O. Solubilization of large hydrophobes in worm-like micelles: Effect of temperature and electrolyte concentration. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
129. Bilici, C., Okay, O. Investigation of the Crystalline Structure and Thermomechanical Properties of Temperature-Sensitive Hydrogels. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
128. Kopan, D., Tuncaboylu, D. C., Okay, O. Self-healing polyacrylamide hydrogels by photoinitiated free radical polymerization. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, İTÜ, September **2011**. (poster).
127. Ak, F., Karakutuk, I., Okay, O. Mechanical Properties of Silk Fibroin Cryogels and Hydrogels. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
126. Akay, G., Tuncaboylu, D. C., Abdurrahmanoglu, S., Orakdogen, N., Oppermann, W., Okay, O. Hydrogels Formed via Hydrophobic Interactions in Mixed Micelle Solutions. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
125. Cakmak, H., Okay, O. DNA Gelation by Heating – Cooling Process. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
124. Sahin, M., Tuncaboylu, D. C., Okay, O. Solubilization of self-healing polyacrylamide hydrogels in surfactant solutions. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
123. Karacan, P., Okay, O. Synthesis and characterization of macroporous DNA hydrogels. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, İTÜ, September **2011**. (poster).
122. Oztoprak, Z., Tuyncaboylu, D. C., Karakutuk, I., Okay, O. Preparation and Characterization of Macroporous Organogels Based on Polybutadiene Rubber. Recent Advances in Synthetic and Biological Gels, One-Day Workshop, September, ITU & Polymers for Advanced Technologies 2011, Lodz, Poland, October **2011**. (poster).
121. Argun, A., Tuncaboylu, D., Okay, O. "Miseller Polimerizasyonu: Hidrofobik Monomerlerin Çözünürlüğün Elektrolit ve Sıcaklık Etkisi", (poster)
25. Ulusal Kimya Kongresi, Erzurum, July **2011**
120. Bilici, C., Okay, O. "Sıcaklığa Duyarlı Hidrojellerin Kristalin Yapısının ve Termomekanik Özelliklerinin İncelenmesi", (poster) 25. Ulusal Kimya Kongresi, Erzurum, July **2011**
119. Tuncaboylu, D. C., Okay, O. "Kendi Kendini İyileştirebilen (self-healing) Poliakrilamid Jellerinin Miseller Kopolimerizasyonu ile Sentezi ve Karakterizasyonu", (lecture) 25. Ulusal Kimya Kongresi, Erzurum, July **2011**
118. Kopan, D., Tuncaboylu, D., Okay, O. "Poliakrilamid Jellerinin Mekanik Özellikleri ve Şişme Davranışlarına Yüzey Aktif Madde ve Hidrofob Blokların Etkisi", (poster) 25. Ulusal Kimya Kongresi, Erzurum, July **2011**
117. Ak, F., Karakutuk, I., Okay, O. "İpek Jellerinin Mekanik Özellikleri", (poster) 25. Ulusal Kimya Kongresi, Erzurum, July **2011**
116. Okay, O. "Soft and smart materials with self-healing abilities", Clausthal Technical University, May **2011** (lecture)
115. Okay, O. "Akıllı polimerik malzemeler", TÜBA Üniversite Konferansları Programı, Hitit Üniversitesi, Çorum, Mart **2011**
114. Okay, O. "Akıllı polimerik malzemeler", İTÜ Kimya Kulübü, SDKM, Mart **2011** (lecture)
113. Okay, O. "Akıllı malzemeler", Kocaeli Üniversitesi, Nisan **2011** (lecture)
112. Okay, O. "Soft and smart materials with self-healing abilities", ODTÜ Kimya Bölümü, Ankara, Nisan **2011** (lecture)

111. Okay, O. "Soft and smart materials with self-healing abilities", Sabancı Üniversitesi, Nisan **2011** (lecture)
110. Okay, O. "Swelling and elasticity of hydrogels and cryogels of DNA" Department of Biotechnology, Lund University, Sweden, September **2010** (lecture)
109. Orakdogen, N., Erman, B., Topuz, F., Okay, O. "Swelling and Elasticity of Responsive DNA Hydrogels" 20th Polymer Networks Group Meeting, Goslar, Germany, Aug. / Sep. **2010** (lecture)
108. Orakdogen, N., Okay, O. "Poly(N,N-Dimethylacrylamide) Hydrogels: Formation by Free Radical Crosslinking Copolymerization, Characterization and Gel Properties". 20th Polymer Networks Group Meeting, Goslar, Germany, Aug. / Sep. **2010** (lecture)
107. Tuncaboylu, D.C., Okay O. "Organic - Inorganic Hybrid Cryogels with Two Generations of Pores". 20th Polymer Networks Group Meeting, Goslar, Germany, Aug. / Sep. **2010** (poster)
106. Okay, O. "Hidrojellerde hidrofobik etkileşmeler". 24. Ulusal Kimya Kongresi, Zonguldak, June **2010** (invited)
105. Karakutuk, I., Okay, O. "Makrogözenekli Kauçuk Jellerinin Sentezi ve Deniz Yüzeyindeki Petrol Döküntülerinin Toplanmasında Kullanımı". 24. Ulusal Kimya Kongresi, Zonguldak, June **2010** (poster)
104. Karacan, P., Okay, O. "DNA Jellerinin Aseton ve Tuz Çözeltileri İçerisindeki Şişme Davranışlarının İncelenmesi" 24. Ulusal Kimya Kongresi, Zonguldak, June **2010** (poster)
103. Bilici, C., Karayel, S., Okay, O. "Kendi Kendine Hareket Edebilen Kriyojele Sistemleri" 24. Ulusal Kimya Kongresi, Zonguldak, June **2010** (poster)
102. Okay, O. DNA Jellerinin Şişme ve Elastik Özellikleri. 3. Ulusal Polimer Kongresi, May **2010**, Izmit (invited)
101. Okay, O. "Design of macroporous gels with various architectures" Porous Hydrogels for Biomedical Applications: from Cytapheresis to Tissue Engineering. Summer School, Antalya **2009** (invited)
100. Orakdogen, N. Okay, O. "Chemically crosslinked DNA hydrogels and cryogels." Porous Hydrogels for Biomedical Applications: from Cytapheresis to Tissue Engineering. Summer School, Antalya **2009** (poster)
99. Tuncaboylu, C.D., Okay, O. "Single-hole macroporous organogel particles". Porous Hydrogels for Biomedical Applications: from Cytapheresis to Tissue Engineering. Summer School, Antalya **2009** (poster)
98. Karakutuk, I., Okay, O. "Formation conditions of macroporous gels with aligned porous structures." Porous Hydrogels for Biomedical Applications: from Cytapheresis to Tissue Engineering. Summer School, Antalya **2009** (poster)
97. Abdurrahmanoglu, S., Okay, O. "Homogeneous polyacrylamide hydrogels made by large size, flexible dimethacrylate crosslinker". APME, Dresden, **2009**, (poster)
96. Okay, O, "Soft and smart materials: Organogels, hydrogels, and DNA gels" Koc University, Science seminar, İstanbul, 12 November **2009**, (lecture)
95. Okay, O., Topuz, F., Abdurrahmanoglu, S., Ceylan, D. "Organojeller, hidrojeller, DNA jelleri: Mekanik özelliklerinin iyileştirilmesi için yeni yöntemler". 23. Ulusal Kimya Kongresi, Sivas Cumhuriyet Üniversitesi, Sivas. June **2009** (invited)
94. Okay, O, "Akıllı jeller" Süleyman Demirel Üniversitesi, Kimya Bayramı, Isparta, 13 May **2009** (lecture)
93. Okay, O. "Makrogözenekli polimer jellerin tasarımda yeni metodlar ve ilerlemeler" 22. Ulusal Kimya Kongresi, Doğu Akdeniz Üniversitesi, Gazi Magosa, K.K.T.C, October **2008** (invited).
92. Ceylan D., Doğu, S., Okay, O. "Butil kauçuk esası organojeller: Hazırlama koşullarının etkisi" 22. Ulusal Kimya Kongresi, Doğu Akdeniz Üniversitesi, Gazi Magosa, K.K.T.C, October **2008** (poster).
91. Can, V., Abdurrahmanoglu, S., Okay, O. "Polimer-kil nanokompozit hidrojellerinin olağanışı şişme davranışları" (poster) 22. Ulusal Kimya Kongresi, Doğu Akdeniz Üniversitesi, Gazi Magosa, K.K.T.C, October **2008** (poster).
90. Cilingir, M., Okay, O. "Hidrofobik yan grupların poliakrilamid hidrojellerin inhomojenite derecesine etkisi" (poster) 22. Ulusal Kimya Kongresi, Doğu Akdeniz Üniversitesi, Gazi Magosa, K.K.T.C, October **2008** (poster).

89. Topuz, F., Okay, O. "DNA hidrojellerinin reolojik özelliklerinin incelenmesi" (poster) 22. Ulusal Kimya Kongresi, Dogu Akdeniz Üniversitesi, Gazi Magosa, K.K.T.C, October **2008** (poster).
88. Okay, O, "Akıllı ve yumuşak polimerik malzemeler" G.Y.T.E., Kocaeli, 15 January **2008** (lecture).
87. Ceylan, D., Ozmen, M.M., Dogu S., Okay, O., "Freezing as a path to build macroporous structures: Superfast responsive tough hydrogels and organogels" Chemical Physics Conference VIII, ITU, Istanbul, April **2008** (invited)
86. Okay, O, "ÖSS stresinden Mezuniyet stresine" İTÜ Kimya Kulübü Seminarları, İstanbul, 27 March **2008** (lecture).
- 84, 85. Okay, O. (a) Polymer-clay nanocomposite hydrogels: Synthesis and characterization, (b) Spatial inhomogeneities in polymer hydrogels. Technische Universitaet Dresden, Special Physical Chemistry Section, Dresden, Germany, **2007** (2 lectures)
83. Okay, O., Ozmen, M.M., Dinu M.V., Ceylan D., Can V., "Strategies toward the synthesis of fast responsive gels with improved mechanical properties" European Polymer Congress 2007, Portoroz, Slovenia. 2-6 July **2007** (invited)
82. Dinu, M.V., Ozmen, M.M., Dragan, E.S., Okay, O., "Synthesis of macroporous hydrogels from frozen monomer solutions under various experimental conditions" European Polymer Congress 2007, Portoroz, Slovenia, 2-6 July **2007** (poster)
81. Orakdogen, N., Okay, O. "Correlation between crosslinking efficiency and spatial inhomogeneity in poly(acrylamide) hydrogels" Polymer Networks Group Conference, Sheffield, England, September **2006** (poster).
80. Ceylan, D., Okay, O. "Swelling-deswelling kinetics of ionic poly(acrylamide) hydrogels and cryogels" Polymer Networks Group Conference, Sheffield, England, September **2006** (poster).
79. Can, V., Okay, O "Phase transition of acrylamide-based polyampholyte gels in water" Polymer Networks Group Conference, Sheffield, England, September **2006** (poster).
78. Okay, O. Design of nano-and micro-scale structures in polymer hydrogels. Polymers: Materials of Advanced Technologies and in Biology, A German-Turkish Workshop, Max-Planck Institute for Polymer Research, Mainz, Germany 29-31, August **2006** (lecture).
77. Okay, O. Design of nano-and micro-scale structures in polymer hydrogels. "Petru-Poni" Institute of Macromolecular Chemistry, Iasi, Romania, November **2006** (lecture)
76. Okay, O. Swelling and elasticity of hydrogels formed by free-radical mechanism. "Petru-Poni" Institute of Macromolecular Chemistry, Iasi, Romania, November **2006** (lecture).
75. Okay, O. "Yumuşak ve akıllı malzemeler: Jeller" Kocaeli Üniversitesi Kimya Bölümü Seminari, İzmit, Kocaeli, 31 March **2006** (lecture)
74. Okay, O. "Hidrojellerde donmuş konsantrasyon dalgaları" 20. Ulusal Kimya Kongresi, Erciyes Üniversitesi, Kayseri, September **2006** (main lecture)
73. Okay, O., Orakdogen, N., Kizilay MY. "Supression of inhomogeneities in gels formed by free-radical mechanism" APME 6, Istanbul, August **2005** (lecture)
72. Can, V., Okay, O "Shake gels based on laponite-PEO mixtures: Effect of polymer molecular weight" Polymer Gels and Networks, 44th Microsymposium of P.M.M., Prague, Czech Republic, 10-14 July **2005** (poster).
71. Orakdogen, N., Okay, O "Formation and properties of poly(N,N-dimethylacrylamide) hydrogels" Polymer Gels and Networks, 44th Microsymposium of P.M.M., Prague, Czech Republic, 10-14 July **2005** (poster).
70. Kizilay, M.Y., Okay, O "Effect of swelling on spatial inhomogeneity in poly(acrylamide) gels formed at various monomer concentration" Polymer Gels and Networks, 44th Microsymposium of P.M.M., Prague, Czech Republic, 10-14 July **2005** (poster).
69. Ozmen, M.M., Okay, O "Effect of preparation temperature on properties of gels based on sodium 2-acrylamido-2-methylpropane-1-sulfonate" Polymer Gels and Networks, 44th Microsymposium of P.M.M., Prague, Czech Republic, 10-14 July **2005** (poster)..
68. Okay, O, "Jellerde nano ve mikro bölgelerin dizaynı" İTÜ Fizik Bölümü Seminarları, İTÜ, İstanbul, 8 Nisan **2005** (lecture).

67. Okay, O. "Swelling, elasticity and inhomogeneity of gels formed by free-radical crosslinking mechanism" Polymer Gels and Networks, 44th Microsymposium of P.M.M., Prague, Czech Republic, 10-14 July **2005**. (main lecture)
66. Okay, O. "Soft and smart materials: Gels" Bilkent Kimya Bölümü Seminari, Bilkent, Ankara, 9 November **2005** (lecture)
65. Okay, O, "Akıllı Malzemeler" İTÜ Kimya Bölümü Seminrarları, İTÜ, İstanbul, 13 February **2004** (lecture)
64. Okay, O, "Akıllı Malzemeler" Marmara Üniversitesi, İstanbul, 12 Mays **2004** (lecture)
63. Kızılay, MY, Okay, O., "Effect of initial monomer concentration on spatial inhomogeneity in poly(acrylamide) gels" Biennial Meeting of the IoP Polymer Physics Group, Univ. of Reading, Polymer Science Centre, Reading, UK, 10-12 September **2003** (poster).
62. Özmen MM, Okay, O, "Sıcaklığa Duyarlı İyonik Poli(N-t- Butilakrilamid-Co- Akrilamid) Hidrojellerinin Şişme Özellikleri ve Elastik Davranışı" 17. Ulusal Kimya Kongresi, İstanbul Üniv., İstanbul, September **2003** (poster)
61. Okay, O, "Polimerik Malzemelerin Bugünü ve Yarını", Yapı Malzemesi Kurultayı 2003, Lütfi Kırdar Kongre ve Sergi Sarayı, İstanbul 8-9 December 2003, (invited)
60. Okay, O, "Polimerik Jeller Araştırma laboratuvarı" Nanoteknoloji ve Nanobiyoteknoloji Toplantısı, Silivri Kassis Hotel, İstanbul, 20-21 December **2003** (lecture)
59. Okay, O., "Swelling and elasticity of hydrogels in polymer melt and in polymer solutions" The Eight International Conference on Chemistry and Physical Chemistry of Oligomers, Chernogolovka, Russia, 9-14 September **2002** (invited)
58. Okay, O, "Jellerde spinodal decomposition ve faz diyagramları" İTÜ Fizik Bölümü Seminarları, İTÜ, İstanbul, February **2002** (lecture)
57. Durmaz, S., Sayıl, C, Okay, O., Inci, MN, Taralp, A., Erman, B., "Elasticity measurements of swollen crosslinked microspheres attached to walls using optical microscopy" Material Research Society Spring 2000 Meeting, Symposium FF: Interfaces, Adhesion, and Processing in Polymer Systems, San Francisco, CA, **2000** (lecture)
56. Okay, O. "Swelling of hydrogels in polymer solutions" World Polymer Congress, IUPAC MACRO 2000, 38th Macromolecular IUPAC Symposium, Warsaw, Poland 9-14 July **2000** (lecture)
55. Melekaslan, D., Okay, O. "Swelling of Poly(NIPA) gels in PEG solutions: Double re-entrant swelling transition" World Polymer Congress, IUPAC MACRO 2000, 38th Macromolecular IUPAC Symposium, Warsaw, Poland, 9-14 July **2000** (poster)
54. Durmaz, S., Sayıl, C, Okay, O. "Phase separation during the formation of poly(acrylamide) hydrogels" World Polymer Congress, IUPAC MACRO 2000, 38th Macromolecular IUPAC Symposium, Warsaw, Poland, 9-14 July **2000** (poster)
53. Okay, O., Durmaz, S., Erman, B. "Solution crosslinked poly(isobutylene) gels: Synthesis and swelling behavior" 15th Polymer Networks Group Meeting, Polymer Networks'2000, Formation-Structure-Properties, Cracow, Poland, 17-21 July **2000** (lecture)
52. Durmaz, S., Okay, O., "Gel growth in free radical crosslinking polymerization of acrylamide: Effect of inactive gel radicals" 15th Polymer Networks Group Meeting, Polymer Networks'2000, Formation-Structure-Properties, Cracow, Poland, 17-21 July **2000** (poster)
51. Melekaslan, D., Okay, O. "Swelling of strong polyelectrolyte hydrogels in PEG solutions: Effect of ion pair formation on the polymer collapse" 15th Polymer Networks Group Meeting, Polymer Networks'2000, Formation-Structure-Properties, Cracow, Poland, 17-21 July **2000** (poster)
50. Sayıl, C., Okay, O., "Effect of synthesis conditions on the structure of Poly(NIPA) gels" 15th Polymer Networks Group Meeting, Polymer Networks'2000, Formation-Structure-Properties, Cracow, Poland, 17-21 July **2000** (poster)
49. Inci, MN, Erman, B., Durmaz, S., Okay, O., "Thermomechanical properties of gels: Statistics and dynamics" Material Research Society Fall 2000 Meeting, Symposium NN: Biomaterials for drug delivery, San Francisco, CA, **2000** (lecture).
48. Melekaslan, D. Okay , O. "Poli(N-İzopropilakrilamid) Jellerinin Reentrant 'Yeniden Şişme' Davranışı" 14. Ulusal Kimya Kongresi, Dicle Univ., Diyarbakır, September **2000** (poster)

47. Durmaz, S., Okay, O., Erman, B., "Poliizobutilen Jellerinin Çözelti İçinde Sentezleri" 14. Ulusal Kimya Kongresi, Dicle Univ., Diyarbakır, September **2000** (poster)
46. Sayıl, Ç., Okay, O., "Yüksek Spesifik Yüzey Alanlı Karbon Küreciklerinin Sentezi" 14. Ulusal Kimya Kongresi, Dicle Univ., Diyarbakır, September **2000** (poster)
45. Sayıl, Ç. and Okay, O., "Poly(NIPA) jellerinin sisme davranışları" 13. Ulusal Kimya Kongresi, 19 Mayıs Univ., Samsun, September **1999** (poster)
44. Melekaslan, D. and Okay, O., "AAm/AMPS ve AAm/MAPTAC esaslı jellerin PEG çözeltilerinde sisme davranışları" 13. Ulusal Kimya Kongresi, 19 Mayıs Univ., Samsun, September **1999** (poster)
43. Durmaz, S. and Okay, O., "AAm - AMPS esaslı hidrojeller: Sentez ve Karakterizasyon" 13. Ulusal Kimya Kongresi, 19 Mayıs Univ., Samsun, September **1999** (poster)
42. Okay, O. "Formation of heterogeneous networks by free-radical crosslinking copolymerization" Polymer Networks 98, 14th Polymer Networks Group International Conference, June 28 - July 3, 1998, The Norwegian University of Science and Technology, NTNU, Trondheim, Norway, June 28 - July 3, **1998** (lecture)
41. Sariisik, S.B., Zor, S. D., Okay, O., "Swelling behavior of anionic acrylamide-based hydrogels in aqueous salt solutions: Comparison of experiments with theory. Polymer Networks 98, 14th Polymer Networks Group International Conference, The Norwegian University of Science and Technology, NTNU, Trondheim, Norway, June 28 - July 3, **1998** (poster)
40. Okay, O. 'Serbest-radikal mekanizma ile heterojen agyapıların oluşumu' 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (lecture)
39. Durmaz, S., Keskinel, M., and Okay, O., 'Akrilamid, 2-akrilamido-2-metilpropansulfonik asit sodyum tuzu, N,N-metilenbisakrilamidin terpolimerizasyonunda jel oluşumunun incelenmesi' 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (poster)
38. Sariisik, S.B., Zor, S.D., and Okay, O., 'Akrilamid ve 2-akrilamido-2-metilpropansulfonik asit sodyum tuzu esaslı hidrojellerin su ve tuzlu çözeltilerinde sisme davranışları' 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (poster)
37. Kayaman, N., Okay, O., and Baysal, BM., 'Poliakrilamid jellerinin düz zincirli polimer çözeltilerinde faz geçişleri' 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (poster)
36. Akkan, U. and Okay, O., "Poliakrilamid jellerinde kinetik olarak donmuş yapıların oluşum mekanizması" 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (poster)
35. Acir, Z. and Okay, O., 'Stiren/divinilbenzen monomerlerinin serbest-radikal çaprazbag kopolimerizasyonunun jellesme öncesi ve sonrası kinetik simülasyonu' 12. Ulusal Kimya Kongresi, Trakya Üniv., Edirne, September **1998** (poster)
34. Okay, O. "Inhomogeneous and heterogeneous network formation by free-radical polymerization" 4th Brazilian Polymer Conference, Bahia-Salvador, Brasil. 28.09 / 2.10.**1997** (invited)
33. Akkan, U., and Okay, O., "Poliakrilamid jellerinde kinetik olarak donmuş yapıların incelenmesi" 11. Ulusal Kimya Kongresi, 100. Yıl Üniv., Van, June **1997** (poster)
32. Kaya, D., Okay, O., Pekcan, Ö., "Free-radical Crosslinking Copolymerization of Styrene and Divinylbenzene: Real Time Monitoring of the Gel Effect By Using Fluorescence Probe" 4. Statistical Physics Days, ITÜ Maçka Tesisleri, **1997** (short talk)
31. Balimtas, K. N., and Okay, O., "Poliakrilamid jellerinin sentez şartları ile özellikleri arası ilişkiler" 11. Ulusal Kimya Kongresi, 100. Yıl Üniv., Van, June **1997** (poster)
30. Küçük, I., Kuyulu, A., Okay, O. "Çapraz baglı polimetilmetakrilat küreciklerinin gözenek yapılarına seyrelticili kalitesinin etkisi" III. Kimya Mühendisliği Sempozyumu, İstanbul Teknik Üniversitesi, September **1996** (poster)
29. Okay, O. "Grundlagenforschung oder anwendungsorientierte Forschung?" Kolloquium der Alexander von Humboldt-Stiftung für Forschungsstipendiaten aus der Türkei, Hotel Büyük Efes, İzmir, 19-21 April **1996** (main lecture)

28. Kayaman, N., Kazan, D., Erarslan, A., Okay, O., Baysal, B.M., "Protein separation conditions by temperature-sensitive poly(N-isopropylacrylamide) gels" International Conference on Environmental Impact of Polymeric Materials, 23rd Aharon Katzir-Katchalsky Conference, Israil, 12 - 16 May **1996** (lecture)
27. Okay, O., "Formation of inhomogeneous and heterogeneous networks by chain crosslinking copolymerization" Polymer Networks 96, 13th Polymer Network Group International Conference, Doorn, Holland, 2-6 September **1996** (poster)
26. Kayaman, N., Okay, O., Baysal, B.M. "Poliakrilamid jellerinin etilen glikol oligomer çözeltileri içinde sisme davranışları" IV. Türkçe Konusan Ülkeler Polimer Sempozyumu, İTÜ, İstanbul, September **1996** (poster)
25. Pekcan, Ö., Yilmaz, Y., Okay, O., "Fluorescence technique for studying the sol-gel transition in free-radical crosslinking copolymerization of methyl methacrylate and ethylene glycol dimethacrylate, 2nd Statistical Physics Days, ITÜ Maçka Tesisleri, 13-14.07.**1995** (short talk)
24. Okay, O., "Critical properties for gelation in free-radical crosslinking copolymerization" 2nd Statistical Physics Days, ITÜ Maçka Tesisleri, 13-14.07.**1995** (lecture)
23. Okay, O., "Serbest-radikal mekanizma ile jel olusumunda kritik özellikler" Polimer '1995 IV. Türkçe Konusan Ülkeler Polimer Sempozyumu, Tashkent, Özbekistan, 7-12 November **1995** (lecture)
22. Okay, O., Kurz, M., Lutz, K., and Funke, W. "Micro- and macrogelation in free-radical crosslinking polymerization of 1,4-divinylbenzene" 35th IUPAC Congress, Istanbul 14-19 August **1995** (lecture)
21. Naghash, H.J., Capek, I., and Okay, O. "Cyclization and multiple crosslinking in free radical crosslinking copolymerization" 35th IUPAC Congress, Istanbul, 14-19 August **1995**. (poster)
20. Naghash, H. J., Yildirim, H. and Okay, O., "Gel formation in free-radical crosslinking copolymerization" 35th IUPAC Congress, Istanbul, 14-19 August **1995** (poster)
19. Kayaman, N., Okay, O. and Baysal, B.M., "Swelling and collapse behaviour of polyacrylamide gels in polymer solutions" 35th IUPAC Congress, Istanbul, 14-19 August **1995** (poster)
18. Tanrisever, T., Okay, O. and Sönmezoglu, I.Ç., "Kinetics of emulsifier-free emulsion polymerization of methyl methacrylate - ethylene glycol dimethacrylate" 35th IUPAC Congress, Istanbul. 14-19 August **1995** (poster)
17. Naghash, H.J., Adali, T., Hacioglu, B., Yagci, Y., and Okay, O. "Gel formation in free-radical crosslinking copolymerization" Europhysics Conference on Gels, Balatonszeplak, Hungary, 25-29 September **1995** (poster)
16. Pekcan, Ö., Yilmaz, Y., Okay, O., "Fluorescence method for measuring critical exponents during sol-gel transition in free-radical crosslinking copolymerization" Europhysics Conference on Gels, Balatonszeplak, Hungary, 25-29 September **1995** (poster)
15. Okay, O., "Polimer Jelleri ve Uygulamaları" Kocaeli Üniversitesi, 22.02.**1995** (lecture).
14. Okay, O., "Mikro- ve makrojeller ve uygulamaları" TÜBITAK Marmara Araştırma Merkezi, Konferans salonu, April **1995** (lecture)
13. Okay, O., "Free-radical crosslinking copolymerization: Cyclization and diffusion control" NSF - TÜBITAK Workshop, "Novel Application of Light Scattering in Polymer Physics: Polymer Coil Collapse in the Poor Solvent Regime", Istanbul, May **1994** (lecture)
12. Okay, O., Naghash, H. J., Capek, I., "Free-radical crosslinking copolymerization: effect of cyclization on diffusion-controlled termination at low conversion" Prague Meetings on Macromolecules, Polymer Networks '94, Prague, Czech Republic, July **1994** (poster)
11. Naghash, H. J., Okay, O., "Serbest-radikal mekanizma ile agyapi sentezinde halka olusum reaksiyonları, 10. Ulusal Kimya Kongresi, Bursa, September **1994** (poster)
10. Okay, O., "Serbest radikal polimerizasyonu ile agyapi olusum kinetigi" 9. Kimya ve Kimya Mühendisliği Simpozyumu, Trabzon, October **1993** (lecture)
9. Okay, O., "Makrogözenekli polimer agyapi kürecikleri" Yıldız Teknik Üniversitesi, 15.04.**1993** (lecture).

8. Gürün, Ç., Okay, O., "Gözeneklilik - sisme - asili vinil grup ilişkileri" 7. Kimya ve Kimya Mühendisliği Simpozyumu, Gazimagusa, K.K.T.C, April **1991** (lecture).
7. Okay, O., "Gözenekli stiren-divinilbenzen kopolimerlerinde inhomojen çapraz bağlanma" 4. Kimya ve Kimya Mühendisliği Simpozyumu, Elazığ, June **1987** (lecture)
6. Okay, O., "Gözenekli stiren-maleikanhidrit-divinilbenzen kopolimer küreciklerinin sentez ve karakterizasyonları" 3. Kimya ve Kimya Mühendisliği Simpozyumu, Ankara, September **1986**, (lecture)
5. Okay, O., "Büyük gözenekli stiren-divinilbenzen kopolimer küreciklerinin olusum koşulları" 2. Ulusal Kimya Simpozyumu, Ankara, September **1985** (lecture).
4. Altinbas, U., Ipekoglu, N., Okay, O., Balkas, T. I., "Bor selektif iyon degistirici reçine sentezi" 2. Ulusal Kimya Simpozyumu, September **1985** (poster)
3. Altinbas, U., Okay, O., Ipekoglu, N., "Bor'a özgü formaldehit esaslı iyon degistirici reçine sentezi ve jeotermal sulara uygulanabilirliği" 2. Ulusal Kimya Simpozyumu, Ankara, September **1985** (poster)
2. Okay, O., "Stiren-divinilbenzen kopolimerlerinde gözeneklilik olusumuna polimerizasyon ortamındaki seyreltici niteliginin etkisi" 2. Ulusal Makromolekül Simpozyumu, Ankara, November **1985** (lecture).
1. Okay, O., "Polimer jellerinde faz geçisi" 1. Ulusal Makromolekül Kollokyumu, Ankara, December **1984** (lecture)

REVIEWER OF JOURNALS

ACS Applied Materials and Interfaces
 Acta Biomaterialia
 Advanced Functional Materials
 Advanced Materials
 Biomacromolecules
 Colloid and Polymer Science
 European Polymer Journal
 Gels
 International Journal of Biological Macromolecules
 Journal of Applied Polymer Science
 Journal of Polymer Science-Polymer Chemistry
 Journal of Polymer Science-Polymer Physics
 Langmuir
 Macromolecules
 Nature Materials
 Polymer
 Polymer Bulletin
 Soft Matter
 Turkish Journal of Chemistry

COURSES TAUGHT

| | |
|---------------------------------------|--|
| General Chemistry (for CHEM students) | (UG, in Turkish, ITÜ, 2001-2002) |
| General Chemistry | (UG, in English, ITU, İŞIK, DAÜ, 1990-1992, 2000-2003) |
| Physical Chemistry | (UG, in English, DAÜ, 1990-1992) |

| | |
|--|--|
| Physical Chemistry 1 and 2 | (UG, in Turkish, KOÜ, 1995-1998) |
| Advanced Physical Chemistry 1 and 2 | (G, in Turkish, KOÜ, 1995-1998) |
| Advances in Physical Chemistry | (G, in English, İTÜ, 2000-2004) |
| Polymer Gels and Networks | (G, in English, İTÜ, 2000-2004) |
| Chemical Kinetics | (UG, in Turkish, İTÜ, 1998-1999) |
| Chemical Thermodynamics | (UG, in Turkish, İTÜ, 1998-) (UG, in English, İTÜ, 2011-) |
| Polymer Chemistry | (UG, in Turkish, KOU, 1995-1998) |
| Physics and Chemistry of Polymers | (G, in Turkish, KOU, 1995-1998) |
| Numerical Methods in Polymerization Kinetics | (G, in Turkish, KOU, 1995-1998) |
| Computer Applications in Chemistry | (UG, in Turkish, KOU, 1995-1998) |
| Computer Applications in Physical Chemistry | (G, in English, DAÜ, 1990-1992) |
| Experimental Chemistry | (UG, in English, DAÜ, 1990-1992) Smart |
| Polymeric Materials | (G, in English, İTÜ, 2014-) |

(Note: DAÜ = Eastern Mediterranean Univ., North Cyprus, KOÜ = Kocaeli Univ., İŞIK = Isik Univ., İTÜ = Istanbul Technical Univ.)

PAST AND PRESENT ADVISEES

MS Thesis

- 1) Ufuk AKKAN, KOÜ, 1997 "Investigation of kinetically frozen structures in polyacrylamide gels" (in Turkish)
- 2) Nurgül K. BALIMTAŞ, KOÜ, 1997 "Relations between the synthesis conditions and the properties of polyacrylamide gels" (in Turkish)
- 3) Muzaffer KESKİNEL, KOÜ, 1997 "Study of the effect of cycle formation on the reaction kinetics of monovinyl-divinyl monomer copolymerization" (in Turkish)
- 4) Safiye Bozkurt SARIŞIK, KOÜ, 1997 "Investigation of the swelling properties of anionic hydrogels based on acrylamide and 2-acrylamido-2-methylpropanesulfonic acid in water and in salt solutions" (in Turkish)
- 5) Erol ERBAY, KOÜ, 1997 "Effect of the diluent on the porous structure of macroporous styrene-divinylbenzene copolymer beads" (in Turkish)
- 6) Nermin GÜNDÖĞAN, İTÜ, 2001 "Thermodynamic analysis of poly(N-isopropylacrylamide) network – linear polymer – solvent systems" (in English)
- 7) Vildan ÖZTÜRK, İTU, 2002 "Synthesis and characterization of temperature sensitive poly(N-tert-butylacrylamide-co-acrylamide) hydrogels" (in English)
- 8) M. Murat ÖZMEN, İTU, 2002 "Swelling properties and elastic behavior of temperature sensitive ionic poly(N-tert-butylacrylamide-co-acrylamide) hydrogels" (in English)

- 9) Handan CERİD, İTU, 2003 "Determination of inhomogeneities in polystyrene gels by using static light scattering techniques" (in English)
- 10) İlknur YAZICI, İTU, 2004 "Effect of synthesis conditions on spatial gel inhomogeneity in polyacrylic acid hydrogels" (in English)
- 11) Arzu OZDOGAN, İTU, 2004 "Effect of charge density on spatial inhomogeneity in poly(acrylamide) and poly(N-isopropylacrylamide) gels" (in English)
- 12) Yucel DOGU, İTU, 2004 "Synthesis and characterization of fast-responsive poly(N-isopropylacrylamide) gels" (in English)
- 13) Deniz CEYLAN İTU, 2008 "Superfast responsive, tough organogels based on butyl rubber" (in English)
- 14) Volkan CAN, İTU, 2008 "Synthesis and characterization of polyacrylamide-Laponite hydrogels" (in English)
- 15) Miray ÇİLİNİR, İTU, 2009 "Effect of hydrophobic side groups on the degree of inhomogeneity in polyacrylamide gels" (in Turkish)
- 16) Saadet DOĞU, İTU, 2009 "Organogels based on butyl rubber: Effect of preparation conditions" (in English)
- 17) İlknur KARAKUTUK, İTU, 2011 "Organogels based on butyl rubber, polybutadiene, and styrene-butadiene rubber for oil spill removal" (in English)
- 18) Murat SARI, İTU, 2011 "Synthesis and characterization of tough hydrogels: Salt-induced micellar copolymerization of acrylamide and dococyl acrylate" (in English)
- 19) Pınar KARACAN, İTU, 2011 "Makrogözenekli DNA jellerinin sentezi ve sulardan kanserojen maddelerin uzaklaştırılmasında kullanımı" (in Turkish)
- 20) Melahat SAHİN, İTU, 2013 "Hidrofobik etkileşimlerle oluşan tersinir hidrojellerin ayrışması ve karakterizasyonu"
- 21) Gizem AKAY, İTU, 2013 "Katanyonik surfaktan çözeltilerinde sentezlenen kendini onarabilen hidrojeller"
- 22) Aslıhan ARĞUN, İTU, 2013 "Kendi kendini onarabilen hidrofobik modifiye poliakrilamid hidrojelinin mekanik özelliklerine bilesenlerinin etkisinin incelenmesi"
- 23) Hüsnüye CAKMAK, İTU, 2013 "Fiziksel ve kimyasal çapraz bağlı DNA hidrojellerinin sentezi ve karakterizasyonu"
- 24) Fatih AK, İTU, 2013 "İpek fibroin kriyojellerinin sentezi ve mekanik özelliklerinin incelenmesi"

- 25) Zeynep ÖZTOPRAK, ITU, 2013 “Sentez sıcaklığı ve çapraz bağlayıcı konsantrasyonun ipek fibroin kriyojellerinin özelliklerine etkisi”
- 26) Uğur ALTUN, ITU, 2013 “İyonik olmayan çift-ağ yapılı poliakrilamid hidrojellerinin sentezi ve mekanik özellikleri”
- 27) Tuba BASKAN, ITU, 2013 “Sıcaklık ve pH'ya duyarlı poliakrilik asit / Pluronik içiçe-geçmiş ağı yapılarının sentezi ve karakterizasyonu”
- 28) Çiğdem BİLİCİ, ITU, 2014 “Miseller polimerizasyonu tekniği ile şekil hafızalı hidrojellerin sentezi ve karakterizasyonu”
- 29) Caner AKINCI, ITU, 2015 “Üstün mekanik özelliklere sahip ipek fibroin iskeletlerinin yüksek fibroin konsantrasyonlarında üretimi”
- 30) Berkant YETISKIN, ITU, 2015 “Mekanik olarak dayanıklı tek-, çift- ve üç-ağ yapılı fibroin kriyojellerinin sentezi ve karakterizasyonu”
- 31) Damla D. DEMİR, ITU, 2016 “Kütle polimerizasyon ile şekil hafızalı, kendini onarabilen hidrofobik modifiye poliakrilik asit hidrojel sentezi ve karakterizasyonu”
- 32) Tuğba ÇELİKER, ITU, 2018 “İpek fibroin/polidimetilakrilamid esaslı yarı-içiçe geçmiş (semi-IPN) hidrojeller“
- 33) Sevil MUSLUMOVA, ITU, 2018 “Butil kauçuk esaslı kriyojellerin sentezi ve özelliklerinin incelenmesi“
- 34) Özge AKÇA, ITU, 2022 “Shape-memory semicrystalline interconnected IPNs based on various commercial rubbers“
- 35) Yahya BAŞ, ITU, 2022 “Silk fibroin cryogel-based shape-memory organohydrogels“
- 36) Gamze DÖŞER, ITU, 2022 “Effect of cryogenic conditions on the properties of synthetic and biological cryogels“
- 37) Çiğdem Buse ORAL, ITU, 2022 “Silk fibroin based smart organohydrogels“
- 38) Büşra SEKİZKARDEŞ, ITU, 2023 “AMPS-based H-bonded superbabsorbent hydrogels“
- 39) Gamze GERİM AYDIN, İTU, 2024. 4D Printing of body temperature responsive hydrogels with self-healing and shape-memory abilities.

PhD Thesis

- 1) Demet MELEKASLAN, ITU, 2004 "Investigation of the phase transition of gels based on acrylamide and N-isopropylacrylamide in polymer solutions" (in Turkish)
- 2) Selda DURMAZ, ITU, 2004 "Preparation of ionic polyacrylamide and polyisobutylene gels and determination of the gel properties" (in Turkish)
- 3) Mine Yener KIZILAY, ITU, 2006 "Investigation of spatial inhomogeneity in polyacrylamide gels by static light scattering" (in Turkish)
- 4) Nermin ORAKDOGEN, ITU, 2006 "Swelling, elasticity and inhomogeneity of poly(N,N-dimethylacrylamide) hydrogels" (in English)
- 5) Murat ÖZMEN, ITU, 2009 "Synthesis of macroporous hydrogels from frozen monomer solutions and their characterization" (in English)
- 6) Deniz CEYLAN TUNCABOYLU ITU, 2012 "Hydrophobic associations in gels: Hybrid organo-cryogels and hydrophobically modified hydrogels" (in English)
- 7) Umit GULYUZ, ITU, 2016 "Synthesis and mechanical properties of self-healing smart hydrogels" (in English)
- 8) Ahmet T. UZUMCU, ITU, 2018 "Synthesis, characterization and applications of biopolymer based hydrogels" (co-advisor, in English)
- 9) Aslıhan ARĞUN, ITU, 2018 "Design and biocompatible hydrogels with regions of different chemical and mechanical Properties" (in English)
- 10) Çiğdem BİLİCİ, ITU, 2018 "Semi-crystalline hydrogels with shape-memory and self-healing functions" (in English)
- 11) Burak TAVŞANLI, ITU, 2021 "Mechanically strong hyaluronic acid-based hydrogels" (in English)
- 12) Berkant YETİŞKİN, ITU, 2021 "Mechanically strong hyaluronic acid-based hydrogels" (in English)
- 13) Esra SU, ITU, 2021 "Mechanically strong hyaluronic acid-based hydrogels" (in English)