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### Uluslararası Araştırmacı ID'leri

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### Eğitim Bilgileri

Doktora, Amerika Birleşik Devletleri 2005 - 2010

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Türkiye 2003 - 2005

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, Türkiye 1998 - 2003

### Araştırma Alanları

Eczacılık Teknolojisi, Kimya Mühendisliği ve Teknolojisi, Yaşam Bilimleri

### SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Phytochemicals in Pancreatic Cancer Treatment: A Machine Learning Study**  
Genc D. E., Ozbek O., Oral B., Yıldırım R., İLERİ ERCAN N.  
ACS Omega, cilt.9, sa.1, ss.413-421, 2024 (SCI-Expanded)
- II. **Coarse-grained modeling of polystyrene-modified CNTs and their interactions with lipid bilayers**  
Gul G., Faller R., İLERİ ERCAN N.  
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- III. **Polystyrene-modified carbon nanotubes: Promising carriers in targeted drug delivery**  
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- IV. **The Toxicity of Polystyrene-Based Nanoparticles in Saccharomyces cerevisiae Is Associated with Nanoparticle Charge and Uptake Mechanism**  
Ozbek O., O. Ulgen K., İLERİ ERCAN N.  
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- V. **Cytotoxicity analysis of nanoparticles by association rule mining**  
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- VI. **Fullerene translocation through peroxidized lipid membranes**  
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- VII. **Pore length- and ion concentration-dependent ionic current in cylindrical nanopores: an atomistic molecular dynamics study**  
İLERİ ERCAN N.  
TURKISH JOURNAL OF CHEMISTRY, cilt.43, sa.2, ss.520-530, 2019 (SCI-Expanded)
- VIII. **Understanding Interactions of Curcumin with Lipid Bilayers: A Coarse-Grained Molecular Dynamics Study**  
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- IX. **Molecular Dynamics Modeling of Methylene Blue-DOPC Lipid Bilayer Interactions**  
İLERİ ERCAN N., Stroeve P., Tringe J. W., Faller R.  
Langmuir, cilt.34, sa.14, ss.4314-4323, 2018 (SCI-Expanded)
- X. **Improved controlled release of protein from expanded-pore mesoporous silica nanoparticles modified with co-functionalized poly(n-isopropylacrylamide) and poly(ethylene glycol) (PNIPAM-PEG)**  
Yu E., Lo A., Jiang L., Petkus B., İLERİ ERCAN N., Stroeve P.  
Colloids and Surfaces B: Biointerfaces, cilt.149, ss.297-300, 2017 (SCI-Expanded)
- XI. **Understanding the Interaction of Pluronic L61 and L64 with a DOPC Lipid Bilayer: An Atomistic Molecular Dynamics Study**  
İLERİ ERCAN N., Stroeve P., Tringe J. W., Faller R.  
Langmuir, cilt.32, sa.39, ss.10026-10033, 2016 (SCI-Expanded)
- XII. **Molecular Dynamics and Monte Carlo simulations resolve apparent diffusion rate differences for proteins confined in nanochannels**  
Tringe J., İLERİ ERCAN N., Levie H., Stroeve P., Ustach V., Faller R., Renaud P.  
Chemical Physics, cilt.457, ss.19-27, 2015 (SCI-Expanded)
- XIII. **Graphene and nano-diamond synthesis in expansions of molten liquid carbon**  
İLERİ ERCAN N., Goldman N.  
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- XIV. **Quantum molecular dynamics simulations of liquid benzene using orbital optimization**  
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- XV. **Molecular transport of proteins through nanoporous membranes fabricated by interferometric lithography**  
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Physical Chemistry Chemical Physics, cilt.15, sa.3, ss.965-971, 2013 (SCI-Expanded)
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Physical Chemistry Chemical Physics, cilt.14, sa.43, ss.15066-15077, 2012 (SCI-Expanded)
- XVII. **Nanopillar array on a fiber facet for highly sensitive surface-enhanced Raman scattering**  
Yang X., İLERİ ERCAN N., Larson C. C., Carlson T. C., Britten J. A., Chang A. S. P., Gu C., Bond T. C.  
Optics Express, cilt.20, sa.22, ss.24819-24826, 2012 (SCI-Expanded)
- XVIII. **Fabrication of functional silicon-based nanoporous membranes**  
İLERİ ERCAN N., Stroeve P., Palazoglu A., Faller R., Zaidi S. H., Nguyen H. T., Britten J. A., Letant S. E., Tringe J. W.  
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- XIX. **Biotechnical and other applications of nanoporous membranes**  
Stroeve P., İLERİ ERCAN N.  
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- XX. **Controlled Molecular Transport through Nanofilters with Tapered and Cylindrical Pores**  
İLERİ ERCAN N., Wiederoder M., Stroeve P., Letant S., Britten J., Hoang Nguyen H. N., Larson C., Balhorn R., Shirk M., Zaidi S., et al.  
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- XXI. **PH influences intracellular reaction network of beta-lactamase producing *Bacillus licheniformis***  
Calik P., Ileri N.  
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- XXII. **Phosphate enrichment and fed-batch operation for prolonged beta-lactamase production by *Bacillus licheniformis***  
Ileri N., Calik P., Sengul A.  
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- XXIII. **PH and ionic strength effects on amino acid transport through Au-nanotubule membranes charged with self-assembled monolayers**  
Ku J., Lai S., İLERİ ERCAN N., Ramírez P., Mafé S., Stroeve P.  
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- XXIV. **Effects of pH strategy on endo- and exo-metabolome profiles and sodium potassium hydrogen ports of beta-lactamase-producing *Bacillus licheniformis***  
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- XXV. **Novel antifoam for fermentation processes: Fluorocarbon-hydrocarbon hybrid unsymmetrical bolaform surfactant**  
Calik P., Ileri N., Erdinc B., Aydogan N., Argun M.  
LANGMUIR, cilt.21, sa.19, ss.8613-8619, 2005 (SCI-Expanded)

### Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Efficient first principles molecular dynamics of benzene using orbital optimization**  
İLERİ ERCAN N., Fried L. E.  
248th National Meeting of the American-Chemical-Society (ACS), San-Francisco, Kostarika, 10 - 14 Ağustos 2014
- II. **Molecular Dynamics Simulations of Colloids in Single Solid-State Nanopores**  
İLERİ ERCAN N., Davenport M., Letant S. E., Tringe J. W.  
58th Annual Meeting of the Biophysical-Society, San-Francisco, Kostarika, 15 - 19 Şubat 2014
- III. **Detection of volatile organic compounds by surface enhanced Raman scattering**  
Chang A. S. P., Maiti A., İLERİ ERCAN N., Bora M., Larson C. C., Britten J. A., Bond T. C.  
Advanced Environmental, Chemical, and Biological Sensing Technologies IX, Baltimore, MD, Amerika Birleşik Devletleri, 26 - 27 Nisan 2012, cilt.8366
- IV. **Study of Electrophoretic Mobility of Proteins in Agarose and Poly-Acrylamide Gels**  
İLERİ ERCAN N., Letant S. E., Britten J., Tringe J. W.  
56th Annual Meeting of the Biophysical-Society, California, Amerika Birleşik Devletleri, 25 - 29 Şubat 2012
- V. **Efficient nanoporous silicon membranes for integrated microfluidic separation and sensing systems**  
İLERİ ERCAN N., Létant S. E., Britten J., Nguyen H., Larson C., Zaidi S., Palazoglu A., Faller R., Tringe J. W., Stroeve P.  
2009 MRS Spring Meeting, San Francisco, CA, Amerika Birleşik Devletleri, 13 - 17 Nisan 2009, cilt.1191, ss.87-92
- VI. **Effect of fed batch operation on intracellular reaction network of  $\beta$ -lactamase producing *Bacillus licheniformis***  
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