Ioannis G. Economou

Professor Ioannis G. Economou holds a Diploma in Chemical Engineering from the National Technical University of Athens, Greece (1987) and a PhD also in Chemical Engineering from The Johns Hopkins University in Baltimore, Maryland, USA (1992). He was a post-doctoral researcher in Delft University of Technology in the Netherlands (1993 – 94) and in Exxon Research and Engineering Company, in New Jersey, USA (1994 – 95). From 1995 to 2009, he worked at the National Center for Scientific Research "Demokritos" in Athens, Greece where he held the position of Director of Molecular Thermodynamics and Modeling of Materials Laboratory from 2003 to 2021 (while on leave from 2009 to 2015, and 2016 to 2021). From 2009 until 2012, he was the Associate Provost for Graduate Studies and Professor of Chemical Engineering at the Petroleum Institute, Abu Dhabi. In 2013, he was appointed Professor of Chemical Engineering at Texas A&M University at Qatar, in 2017 he was appointed Associate Dean for Academic Affairs and in 2021 Senior Associate Dean for Academic Affairs and Graduate Studies.

He held various visiting / research positions including research fellow in University College London (1994 – 96) and Princeton University (2004 and 2015), and visiting Professor in the Technical University of Denmark (2001 and 2006 - 07) and the American College of Greece (2007 - 09). Furthermore, he has consulted extensively for major oil and chemical companies in North America, Europe and Middle East.

Prof. Economou has supervised 18 MSc students, 14 PhD students and 18 post-docs, he has published 220 peer-reviewed research papers in leading journals in Chemical Engineering, Physical Chemistry and Polymer Science. In addition, he co-authored 10 book chapters and co-edited 1 book entitled "Natural Gas Processing from Midstream to Downstream" (Wiley, 2019). His H-index is 52 according to Scholar Google. He has given approximately 350 presentations in conferences, Universities and industrial research centers worldwide.

Prof. Economou's research interests are related to the development and validation of multi-scale thermodynamic models for the oil & gas, chemical and pharmaceutical industry. In recent years, he developed models for CO_2 capture, transportation and sequestration technologies, shale gas technology, aqueous systems, green solvents, pharmaceuticals, and soft materials including polymers, ionic liquids, metal organic frameworks, etc.

From 2007 to 2014, he was the Founding Chairman of the Working Party on Thermodynamics and Transport Properties of the European Federation of Chemical Engineering. He is Editor of *Fluid Phase Equilibria,* and member of the Editorial Board in *Journal of Chemical and Engineering Data.*

Additional information can be found here:
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Representative recent publications

1. P. Krokidas, S. Moncho, E.N. Brothers and I.G. Economou, "Defining New Limits in Gas Separations Using Modified ZIF Systems", *ACS Appl. Mater. Interfaces*, **12**(18), 20536 - 20547 (2020).
2. K.D. Papavasileiou, L.D. Peristeras, A. Bick and I.G. Economou, "Molecular Dynamics Simulation of the *n*-Octacosane – Water Mixture Confined in Graphene Mesopores: Comparison of Atomistic and Coarse-Grained Calculations and the Effect of Catalyst Nanoparticle", *Energy & Fuels,* **35**(5), 4313 – 4332 (2021). Featured article in the cover page of the issue.
3. G.M. Kontogeorgis, R. Dohrn, I.G. Economou, J.-C. de Hemptinne, A. ten Kate, S. Kuitunen, M. Mooijer, L.F. Žilnik and V. Vesovic, "Industrial Requirements for Thermodynamic and Transport Properties: 2020", *Ind. Eng. Chem. Res.,* **60**(13), 4987 – 5013 (2021). ACS Editors' Choice.
4. N. Novak, G.M. Kontogeorgis, M. Castier and I.G. Economou, "Water – Hydrocarbon Phase Equilibria with SAFT-VR Mie Equation of State", *Ind. Eng. Chem. Res.,* **60**(14), 5278 – 5299 (2021). Featured article in the cover page of the issue.
5. F. Hillman, M.R.A. Hamid, P. Krokidas, S. Moncho, E.N. Brothers, I.G. Economou and H.-K. Jeong, "Delayed Linker Addition (DLA) Synthesis for Hybrid SOD ZIFs with Unsubstituted Imidazolate Linkers for Propylene/Propane and n-Butane/i-Butane Separations", *Angew. Chem. Int. Ed.,* **60**(11), 10191 – 10199 (2021).
6. I.K. Nikolaidis, R. Privat, J.-N. Jaubert and I.G. Economou, "Assessment of the PC-SAFT EoS Against a Benchmark Database of High-Quality Binary-System Data", *Ind. Eng. Chem. Res.,* **60**(24), 8935 – 8946 (2021). Featured article in the cover page of the issue.
7. S. Ravipati, M.S. Santos, I.G. Economou, A. Galindo, G. Jackson and A.J. Haslam, "Monte Carlo Molecular Simulation Study of Carbon Dioxide Sequestration into Dry and Wet Calcite Pores Containing Methane", *Energy & Fuels,* **35**(14), 11393 – 11402 (2021).
8. N. Novak, G.M. Kontogeorgis, M. Castier and I.G. Economou, "Modeling of Gas Solubility in Aqueous Electrolyte Solutions with SAFT-VR Mie Equation of State", *Ind. Eng. Chem. Res.,* **60**(42), 15327 – 15342 (2021). Featured article in the cover page of the issue.