

2021 International Solvay Chair in Chemistry



Professor Omar M. Yaghi
University of California-Berkeley

Omar M. Yaghi is an elected member of the U.S. National Academy of Sciences, and has been honored with many awards for his scientific accomplishments, including Materials Research Society Medal (2007), American Chemical Society Award in the Chemistry of Materials (2009), King Faisal International Prize in Science (2015), Royal Society of Chemistry Spiers Memorial Award (2017), Albert Einstein World Award of Science (2017), BBVA Foundation Frontiers of Knowledge Award in Basic Sciences (2017), Wolf Prize in Chemistry (2018), ENI Award for Excellence in Energy (2018), Gregori Aminoff Prize by the Royal Swedish Academy of Sciences (2019), August-Wilhelm-von-Hofmann-Denkünze of the German Chemical Society (2020), Royal Society of Chemistry Sustainable Water Award (2020), and VinFuture Prize for Emerging Science and Technology (2021).

Closing Lecture (FORUM E)

Extending Organic Chemistry into Infinite Two- and Three-dimensions

The covalent bond occupies a central role in building up organic molecules leading to polymers and pharmaceuticals. With the advent of covalent organic frameworks (COFs), the chemistry of the covalent bond has been extended to crystalline two- and three-dimensional frameworks. Here, organic molecules are stitched together with covalent bonds to make crystalline, porous frameworks of high architectural and chemical robustness. This opened the way to carrying out chemistry on frameworks (i.e. the development of precision chemistry beyond the molecule). The union of the covalent and the mechanical bond gives way to incorporating flexibility and dynamics into frameworks, and this provides a whole new way of thinking about materials beyond molecules.

FRIDAY 21 OCTOBER 2022 AT 4:30 PM

COFFEE AND TEA WILL BE SERVED AT 4:15 P.M IN FRONT OF FORUM E

!!FORUM E!!

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