

Professor Ashraf Brik

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Ashraf Brik completed his undergraduate studies in Chemistry in 1996 at the Ben-Gurion University of the Negev. Brik attended the Technion-Israel Institute of Technology for his M.Sc. degree and became interested in organic synthesis of natural products, under the guidance of Dr. Nizar Haddad. In 1998, he moved to The Scripps Research Institute (TSRI) where he worked under the guidance of Professor Ehud Keinan and Professor Philip E. Dawson on a joint program between the Technion and TSRI, in the area of chemical synthesis of proteins. He completed his Ph.D. in 2001, thereafter started his postdoctoral position with Professor Chi-Huey Wong (TSRI). During this time, Brik developed methods to facilitate the discovery of inhibitors against various enzymes. In 2004, he was promoted to a Sr. Research Associate in the Wong Laboratory and became involved in the synthesis of glycopeptides and glycoproteins applying his knowledge and skills in protein chemistry. In 2007, Brik returned to his Alma Mater as an Assistant Professor at the Chemistry Department in BGU and was promoted to an Associate Professor in 2011 and to a Full Professor in 2012. In 2015, Brik moved to the Technion where he is today a Neubauer Professor in the Schulich Faculty of Chemistry. His research involves the development of novel chemistries and approaches for the synthesis and semisynthesis of posttranslationally modified proteins (e.g. ubiquitinated, glycosylated and phosphorylated proteins) for biochemical, biophysical and biological studies. Prof. Brik, an author over 100 articles in international peer-reviewed journals, in 2017 received The Michael Bruno Memorial Award and The Henry Taub Prize for Academic Excellence. In 2015, Prof. Brik received the Bessel Award of the Humboldt foundation, also, The 11th Hirata Award. Brik also received The Teva Award for Excellence in memory of Eli Hurvitz and the 2011 Israel Chemical Society prize for Outstanding Young Chemist.

Homepage: <http://ashraf-brik.com/index.php>

Recent Publications

1. Muhammad Jbara, Emad Eid and **Ashraf Brik***, Palladium mediated deallylation in fully aqueous conditions for native chemical ligation at aspartic and glutamic acid sites, *Organic & Biomolecular Chemistry*, **2018**, *16*, 4061-4064.
2. Roman Meledin, Sachitanand M. Mali, Oded Kleifeld* and **Ashraf Brik***, Activity-Based Probes Developed by Applying a Sequential Dehydroalanine Strategy on

Expressed Proteins Reveal a Potential α -globin Modulating Deubiquitinase, *Angewandte Chemie*, **2018**, 57, 5645-5649.

3. Muhammad Jbara, Hao Sun, Guy Kamnesky and **Ashraf Brik***, Chemical Chromatin Ubiquitylation, *Current Opinions in Chemical Biology*, **2018**, 45:18–26.
4. Hao Sun, Roman Meledin, Sachitanand M. Mali and **Ashraf Brik***, Total Chemical Synthesis of Ester-Linked Ubiquitinated Proteins Unravels their Behavior with Deubiquitinases, *Chemical Science*, **2018**, 9, 1661-1665.
5. Suman Kumar Maity, Muhammad Jbara, Guy Mann, Guy Kamnesky and **Ashraf Brik***; Total Chemical Synthesis of Histones and their Analogues Assisted by Native Chemical Ligation and Palladium Complexes, *Nature Protocols*, **2017**, 12, 2293-2322.
6. Pushparathinam Gopinath, Atif Mahammed, Tal Eilon-Shaffer, Mickal Nawatha, Shimrit Ohayon, Doron Shabat*, Zeev Gross* and **Ashraf Brik***, Switching Futile para-Quinone to Efficient ROS Generator: Ubiquitin Specific Protease-2 Inhibition, Electrocatalysis and Quantification *ChemBioChem*, **2017**, 18, 1683-1687.
7. Muhammad Jbara, Noga Guttmann-Raviv, Suman Kumar Maity, Nabieh Ayoub* and **Ashraf Brik***, Total Chemical Synthesis of Methylated Analogues of Histone 3 Revealed KDM4D as a Potential Regulator of H3K79me3, *Bioorganic and Medicinal Chemistry*, **2017**, 25, 4966-4970.
8. Muhammad Jbara, Suman kumar Maity, **Ashraf Brik***, Palladium in the Chemical Synthesis and Modification of Proteins, *Angewandte Chemie*, **2017**, International Edition, **2017**, 56,10644-10655.
9. Somasekhar Bondalapati#, Emad Eid#, Sachitanand M. Mali, Cynthia Wolberger, **Ashraf Brik***, Total Chemical Synthesis of SUMO-2-Lys63-linked Diubiquitin Hybrid Chains Assisted by Removable Solubilizing Tags (# these authors contributed equally), *Chemical Science*, **2017**, 8, 4027-4034.
10. Sachitanand M. Mali, Sumeet K. Singh, Emad Eid, and **Ashraf Brik***, Ubiquitin Signaling: Chemistry Comes to the Rescue, *Journal of American Chemical Society*, **2017**, 139 (14), pp 4971–4986, doi: 10.1021/jacs.7b00089.