

Mass spectrometry

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Nanoparticles and photochemistry for native-like transmembrane protein footprinting

Jie Sun, Xiaoran Roger Liu, Shuang Li, Peng He, Weikai Li, and Michael L. Gross

Nat Commun. 2021 Dec 14;12(1):7270

<https://www.nature.com/articles/s41467-021-27588-8>

Mapping conformational changes on bispecific antigen-binding biotherapeutic by covalent labeling and mass spectrometry

Arnik Shah, Dipanwita Batabyal, Dayong Qiu, Weidong Cui, John Harrahy, and Alexander R. Ivanov

J Pharm Anal. 2024: 100966

<https://www.sciencedirect.com/science/article/pii/S2095177924000637>

A fast photochemical oxidation of proteins (FPOP) platform for free-radical reactions: the carbonate radical anion with peptides and proteins

Mengru Mira Zhang, Don L. Rempel, and Michael L. Gross

Free Radic Biol Med. 2019 Feb 1:131:126-132

<https://www.sciencedirect.com/science/article/pii/S0891584918316186>

Footprinting mass spectrometry of membrane proteins: ferroportin reconstituted in saposin A picodiscs

Fengbo Zhou, Yihu Yang, Saketh Chemuru, Weidong Cui, Shixuan Liu, Michael Gross, and Weikai Li

Anal Chem. 2021 Aug 24;93(33):11370-11378

<https://pubs.acs.org/doi/10.1021/acs.analchem.1c02325>

Investigation of D76N β 2-microglobulin using protein footprinting and structural mass spectrometry

Owen Cornwell, James R. Ault, Nicholas J. Bond, Sheena E. Radford, and Alison E. Ashcroft

J Am Soc Mass Spectrom. 2021 Jul 7;32(7):1583-1592

<https://pubs.acs.org/doi/10.1021/jasms.0c00438>

Hydrogen-deuterium exchange and hydroxyl radical footprinting for mapping hydrophobic interactions of human bromodomain with a small molecule inhibitor

Ke Sherry Li, Elizabeth T. Schaper Bergman, Brett R. Beno, Richard Y.-C. Huang, Ekaterina Deyanova, Guodong Chen, and Michael L. Gross

J Am Soc Mass Spectrom. 2019 Dec;30(12):2795-2804

<https://pubs.acs.org/doi/10.1007/s13361-019-02316-1>

Composite conformational changes of signaling proteins upon ligand binding revealed by a single approach: calcium-calmodulin study

Xiaoran Roger Liu, Don L. Rempel, and Michael L. Gross

Anal Chem. 2019 Oct 1;91(19):12560-12567

<https://pubs.acs.org/doi/10.1021/acs.analchem.9b03491>

Hydroxyl-radical reaction pathways for the fast photochemical oxidation of proteins platform as revealed by ¹⁸O isotopic labeling

Xiaoran Roger Liu, Mengru Mira Zhang, Bojie Zhang, Don L. Rempel, and Michael L. Gross

Anal Chem. 2019 Jul 16;91(14):9238-9245

<https://pubs.acs.org/doi/10.1021/acs.analchem.9b02134>

Recognition of human IgG1 by Fcγ receptors: structural insights from hydrogen–deuterium exchange and fast photochemical oxidation of proteins coupled with mass spectrometry

Liuqing Shi, Tun Liu, Michael L. Gross, and Yining Huang

Biochemistry. 2019 Feb 26;58(8):1074-1080

<https://pubs.acs.org/doi/10.1021/acs.biochem.8b01048>

Protein-ligand interaction by ligand titration, fast photochemical oxidation of proteins and mass spectrometry: LITPOMS

Xiaoran Roger Liu, Mengru Mira Zhang, Don L. Rempel, and Michael L. Gross

J Am Soc Mass Spectrom. 2019 Feb;30(2):213-217

<https://pubs.acs.org/doi/10.1007/s13361-018-2076-x>

Comparing hydrogen deuterium exchange and fast photochemical oxidation of proteins: a structural characterisation of wild-type and ΔN6 β2-microglobulin

Owen Cornwell, Sheena E. Radford, Alison E. Ashcroft, and James R. Ault

J Am Soc Mass Spectrom. 2018 Dec;29(12):2413-2426

<https://pubs.acs.org/doi/10.1007/s13361-018-2067-y>

Orthogonal mass spectrometry-based bootstrapping for epitope mapping and structural characterization: the IL-6 receptor upon binding of protein therapeutics

Ke Sherry Li, Guodong Chen, Jingjie Mo, Richard Y.-C. Huang, Ekaterina G. Deyanova, Brett R. Beno, Steve R. O’Neil, Adrienne A. Tymiak, and Michael L. Gross

Anal Chem. 2017 Jul 18;89(14):7742-7749

<https://pubs.acs.org/doi/10.1021/acs.analchem.7b01748>

Incorporation of a reporter peptide in FPOP compensates for adventitious scavengers and permits time-dependent measurements

Ben Niu, Brian C. Mackness, Don. L. Rempel, Hao Zhang, Weidong Cui, C. Robert Matthews, Jill A. Zitzewitz, and Michael L. Gross

J Am Soc Mass Spectrom. 2017 Feb;28(2):389-392

<https://pubs.acs.org/doi/10.1007/s13361-016-1552-4>

Conformational-sensitive fast photochemical oxidation of proteins and mass spectrometry characterize amyloid beta 1–42 aggregation

Ke Sherry Li, Don L. Rempel, and Michael L. Gross

J Am Chem Soc. 2016 Sep 21;138(37):12090-8

<https://pubs.acs.org/doi/10.1021/jacs.6b07543>

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