

SILVIA BRACCO

Associate Professor

Department of Materials Science

University of Milano-Bicocca

silvia.bracco@unimib.it

orcid.org/0000-0002-2575-6424



Short CV_Silvia Bracco

Silvia Bracco obtained her PhD in 2004 in Materials Science and after a few years as post-doc she became Assistant Professor in Industrial Chemistry. She was appointed Associate Professor in Industrial Chemistry at the Department of Materials Science of University of Milano-Bicocca in 2019.

After earning her PhD in Materials Science, she spent several periods as a visiting researcher in foreign institutions such as Cardiff University (UK), the University of California at Santa Barbara - Materials Research Laboratories (MRL), the European Grenoble Synchrotron Radiation Facility and the Swedish NMR Centre (SNC) - University of Göteborg. Her scientific activity took place in the field of macromolecular and supramolecular chemistry, with a focus on design, synthesis and study of new porous nanostructured materials for the storage and selective adsorption of gas. These materials include molecular crystals, hypercross-linked 3D polymers and organometallic structures (MOF). Relevant results have been obtained in the field of solid-state molecular rotors, whose rotation speed in the Gigahertz regime persists even at 2 K, and whose dynamics is modulated by the diffusion of gas in the engineered cavities of the porous matrices. The research activity has mainly used solid state techniques. Special expertise has been achieved in ss-NMR techniques, including 2D HETCOR experiments on CO₂-matrix and hyperpolarized Xe NMR, XRD of powders, microcalorimetry coupled with adsorption isotherms, breakthrough experiments for selective separation of gas mixtures (CO₂, N₂ and H₂).

The results of her research activity are published in 99 articles, most of them published in high-impact journals. The scientific results were presented in 181 communications at conferences, including 36 seminars and invited oral communications.

- **Citations: 3651, h-index: 36** (source Scopus, Scopus Author ID: 6603942768)

- **Citations: 4050, h-index: 38** (source Google Scholar)

Selected Publications

- Perego, J.; Bezuidenhout, C. X.; **Bracco, S.**; Piva, S.; Prando, G.; Aloisi, C.; Carretta, P.; Kaleta, J.; Le, P. T.; Sozzani, P.; Daolio, A.; Comotti A. *Angew. Chem. Int. Ed.* **2023**, *62*, e202215893
- Orfano, M.; Perego, J.; Cova, F.; Bezuidenhout, C. X.; Piva, S.; Dujardin, C.; Sabot, B.; Pierre, S.; Mai, P.; Daniel, C.; **Bracco, S.**; Vedda, A.; Comotti, A.; Monguzzi, A. *Nat. Photon.* **2023**.
- Mauree, S.; Villemot, V.; Hamel, M.; Sabot, B.; Pierre, S.; Dujardin, F.; Belloni, F.; Comotti, A.; **Bracco, S.**; Perego, J.; Bertrand, G. H. V. *Adv. Funct. Mater.* **2023**, 2302877.
- Perego, J.; Bezuidenhout, C. X.; Villa, I.; Cova, F.; Crapanzano, R.; Frank, I.; Pagano, F.; Kratochwill, N.; Auffray, E.; **Bracco, S.**; Vedda, A.; Dujardin, C.; Sozzani, P. E.; Meinardi, F.; Comotti, A.; Monguzzi, A. *Nat. Commun.* **2022**, *13*, 3504.
- Perego, J.; **Bracco, S.**; Comotti, A.; Piga, D.; Bassanetti, I.; Sozzani, P. *Angew. Chem. Int. Ed.* **2021**, *60*, 6117-6123.
- Perego, J.; Bezuidenhout, C. X.; **Bracco, S.**; Prando, G.; Marchio, L.; Negroni, M.; Carretta, P.; Sozzani, P.; Comotti, A. *J. Am. Chem. Soc.* **2021**, *143*, 13082-13090.

- Perego, J.; Villa, I.; Pedrini, A.; Padovani, E. C.; Crapanzano, R.; Vedda, A.; Dujardin, C.; Bezuidenhout, Charl X.; **Bracco, S.**; Sozzani, P. E.; Comotti, A.; Gironi, L.; Beretta, M.; Salomoni, M.; Kratochwil, N.; Gundacker, S.; Auffray, E.; Meinardi, F.; Monguzzi, A. *Nat. Photonics* **2021**, *15*, 393-400.
- Perego, J.; **Bracco, S.**; Negroni, M.; Bezuidenhout, C. X.; Prando, G.; Carretta, P.; Comotti, A.; Sozzani, P. *Nat. Chemistry* **2020**, *12*, 845-851.
- Castiglioni, F.; Danowski, W.; Perego, J.; Leung, F. K.-C.; Sozzani, P.; **Bracco, S.**; Wezenberg, S. J.; Comotti, A.; Feringa, B. L. *Nat. Chemistry* **2020**, *12*, 595-602.
- Xing, G.; Bassanetti, I.; **Bracco, S.**; Negroni, M.; Bezuidenhout, C.; Ben, T.; Sozzani, P.; Comotti, A. *Chem. Sci.* **2019**, *10*, 730-736.
- Perego, J.; Pedrini, J.; Bezuidenhout, C. X.; Sozzani, P. E.; Meinardi, F.; **Bracco, S.**; Comotti, A.; Monguzzi, A. *Adv. Mater.* **2019**, *31*, 1903309.
- Bassanetti, I.; **Bracco, S.**; Comotti, A.; Negroni, M.; Bezuidenhout, C.; Canossa, S.; Mazzeo, P. P.; Marchio, L.; Sozzani, P. *J. Mater. Chem. A* **2018**, *6*, 14231-14239.
- **Bracco, S.**; Piga, D.; Bassanetti, I.; Perego, J.; Comotti, A.; Sozzani, P. *J. Mater. Chem. A* **2017**, *5*, 10328-10337. (JIF: 12.7)
- A. Comotti, **S. Bracco**, P. Sozzani *Acc. Chem. Res.* **2016**, *49*, 1701-1710.
- Kishida, K.; Okumura, Y.; Watanabe, Y.; Mukoyoshi, M.; **Bracco, S.**; Comotti, A.; Sozzani, P.; Horike, S.; Kitagawa, S. *Angew. Chem. Int. Ed.* **2016**, *55*, 13784-13788.
- **Bracco, S.**; Beretta, M.; Cattaneo, A.; Comotti, A.; Falqui, A.; Zhao, K.; Rogers, C.; Sozzani, P. *Angew. Chem. Int. Ed.* **2015**, *54*, 4773-4777.
- Kitao, T.; **Bracco, S.**; Comotti, A.; Sozzani, P.; Naito, M.; Seki, S.; Uemura, T.; Kitagawa, S. *J. Am. Chem. Soc.* **2015**, *137*, 5231-5238.
- Comotti, A.; **Bracco, S.**; Ben, T.; Qiu, S.; Sozzani, P. *Angew. Chem. Int. Ed.* **2014**, *53*, 1043-1047.
- Distefano, G.; Suzuki, H.; Tsujimoto, M.; Isoda, S.; **Bracco, S.**; Comotti, A.; Sozzani, P.; Uemura, T.; Kitagawa, S. *Nat. Chem.* **2013**, *5*, 335-341.
- Comotti, A.; **Bracco, S.**; Mauri, M.; Ben, T.; Qiu, S.; Sozzani, P. *Angew. Chem. Int. Ed.* **2012**, *51*, 10136-10140.
- **Bracco, S.**; Comotti, A.; Ferretti, L.; Sozzani, P. *J. Am. Chem. Soc.* **2011**, *133*, 8982-8994.
- Comotti, A.; **Bracco, S.**; Valsesia, P.; Beretta, M.; Sozzani, P. *Angew. Chem. Int. Ed.* **2010**, *49*, 1760-1764. (JIF: 15.3)
- Comotti, A.; **Bracco, S.**; Sozzani, P.; Horike, S.; Matsuda, R.; Chen, J.; Takata, M.; Kubota, Y.; Kitagawa, S. *J. Am. Chem. Soc.* **2008**, *130*, 13664-13672.
- Comotti, A.; **Bracco, S.**; Valsesia, P.; Ferretti, L.; Sozzani, P. *J. Am. Chem. Soc.* **2007**, *129*, 8566-8576.
- P. Sozzani, **S. Bracco**, A. Comotti, P. Valsesia, R. Simonutti, Terasaki, O., Sakamoto *Nat. Materials* **2006**, *5*, 545-551.
- Sozzani, P.; **Bracco, S.**; Comotti, A.; Ferretti, L.; Simonutti R. *Angew. Chem. Int. Ed.* **2005**, *44*, 1816-1820.
- P. Sozzani, **S. Bracco**, A. Comotti, I. Camurati, R. Simonutti *J. Am. Chem. Soc.* **2003**, *125*, 12881-12893.

Milano, 31/07/2023

