

### Synthesis of Fluorescent-Tagged Polymers

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#### Abstract

New MMA-PAH copolymers were prepared with a view to their use as stabilisers for aqueous graphene dispersions, for surface functionalisation of 2D-materials and for the synthesis of Janus, 2D-materials. A variety of perylene- and pyrene-containing copolymers were prepared by radical copolymerization of 5-(perylene-3-yl)pent-4-yn-1-yl methacrylate (Perylene-C5-MA), 1-pyrenemethyl methacrylate (PyMMA), 2-Acrylamido-2-methylpropane sulfonic acid (AMPS) and 2-(2-Bromoisobutyryloxy) ethyl methacrylate (BIEM). Following the successful synthesis of these copolymers a study of their interaction with 2D-materials has now been initiated.