

Iminodiacetic derivatives of p-ter- -butylthiacalix[4]arene: Synthesis and influence of conformation on the aggregation with bismarck brown Y

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Abstract

© ISUCT Publishing. Three conformers (cone, partial cone and 1,3-alternate) of tetrasubstituted at the lower rim p-tert-butylthiacalix[4] arene derivatives with iminodiacetic fragments were synthesized and characterized. It was shown by spectral methods (UV-Vis, ¹H NMR and DOSY spectroscopy, DLS) and TEM that the monodisperse nano-sized particles are formed by self-assembly of synthetic octaacids in water with azo dye Bismarck brown Y in the case of the partial cone and 1,3-alternate conformations. It was found that the dye associates with the acid binding sites of the macrocycle.

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Keywords

Bismarck brown Y, Macrocyclic receptors, Self-assembly, Thiacalix[4]arene

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