

Lucrări științifice

Lucrări științifice A elaborat alături de colaboratorii săi strategii originale pentru obținerea polimerilor de coordinare prin utilizarea de noduri oligonucleare homo- și heterometalice. A descris noi tipuri de topologii pentru polimerii de coordinare. A sintetizat, pe baza unei strategii proprii, primii nanomagneți moleculari monodimensionali cu trei ioni metalici diferiți. A adus contribuții în chimia metalosupramoleculară: helicați homo- și heterometalici, dreptunghiuri moleculare, metalaciclofani, metalacalixarene, clusteri homo- și heterometalici, cristale moleculare obținute prin combinarea și controlul mai multor tipuri de forțe intermoleculare, co-cristalizări. A utilizat pentru prima dată complecșii heteroleptici bis-oxalato ai cromului (III) ca metaloliganzi pentru obținerea de sisteme heterometalice cu punți oxalato (M. Andruh, *Pure Appl. Chem.*, 2005, 77, 1685; M. Andruh, *Chem. Commun.*, 2007, 2565; M. Andruh, D. Branzea, R. Gheorghe, A. M. Madalan, *CrystEngComm*, 2009, 11, 2571; M. Andruh, J.-P. Costes, C. Diaz, S. Gao, *Inorg. Chem.*, 2009, 48, 3342; G. Marinescu, M. Andruh, F. Lloret, M. Julve, *Coord. Chem. Rev.*, 2011, 255, 161; M. Andruh, *Chem. Commun.*, 2011, 47, 3025; M. Andruh, *Chimia*, 2013, 67, 383; M. Andruh, *Dalton Trans.*, 2015, 44, 16633; T. Mocanu, V. Tudor, M. Andruh, *CrystEngComm*, 2017, 19, 3538; M. Andruh, *Chem. Commun.*, 2018, 54, 3559; M. G. F. Vaz, M. Andruh, *Coord. Chem. Rev.*, 2021, 427, 213611).

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