

DSM Science & Technology Awards (NORTH) 2008	
Name	Zoran Popović
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Zoran Popović's research deals with nano-objects functionalization, their organization in solution, on surfaces, and in a more visionary approach their assembly with living systems. In particular the use of channel-type porous crystals, zeolite L, proved to be a versatile strategy for the realization of complex structures. Self-assembly as a discipline emerged with a goal of constructing biologically inspired architecture of molecules that are otherwise not achievable by conventional step-by-step chemical reactions. Such concept in his research has been extended to non-spherical objects, of nano- and micrometer dimensions, used as building blocks, to achieve ordered structures through multiple interactions. The manipulation of such materials can also lead to their organization on conductive surfaces. Finally the bridge with biology was realized by connecting the zeolites to living organisms and realizing assemblies of bacteria and functional nanomaterials. This last achievement opens a way for constructing hybrid systems for cell communication and medical imaging.