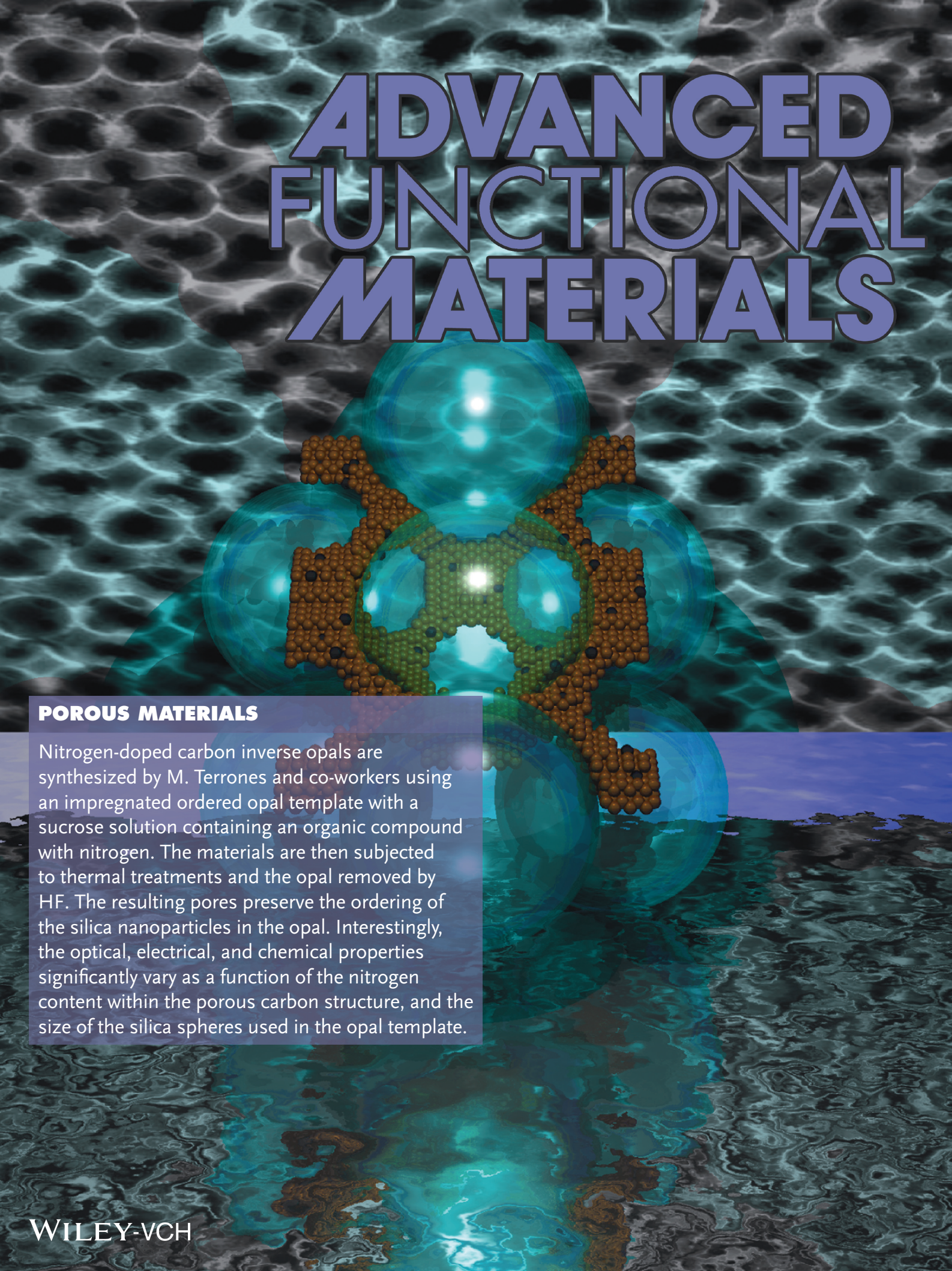
ADVANCED FUNCTIONAL MATERIALS



POROUS MATERIALS

Nitrogen-doped carbon inverse opals are synthesized by M. Terrones and co-workers using an impregnated ordered opal template with a sucrose solution containing an organic compound with nitrogen. The materials are then subjected to thermal treatments and the opal removed by HF. The resulting pores preserve the ordering of the silica nanoparticles in the opal. Interestingly, the optical, electrical, and chemical properties significantly vary as a function of the nitrogen content within the porous carbon structure, and the size of the silica spheres used in the opal template.

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