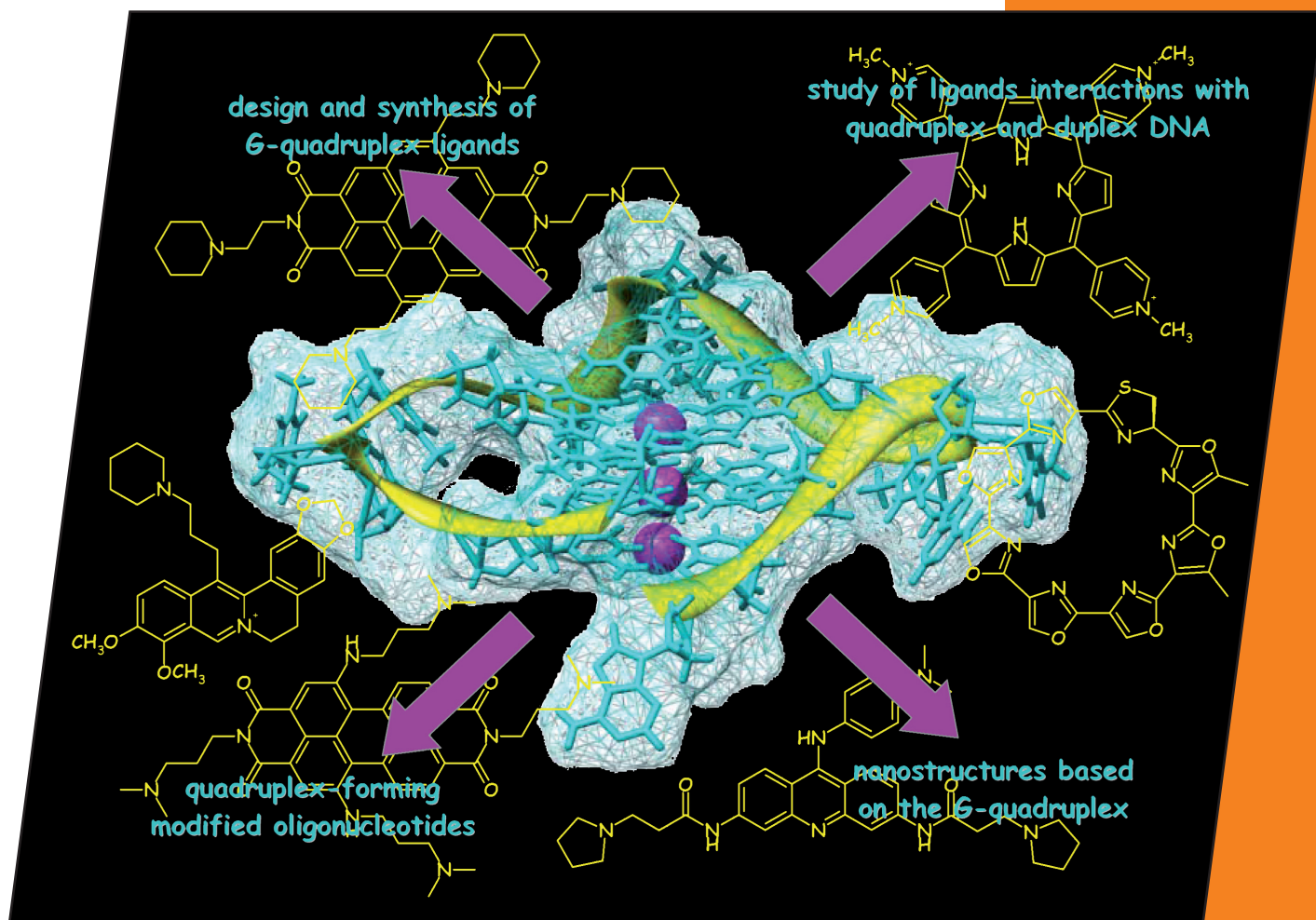


[14]

EurJOC
European Journal of
Organic Chemistry

14/2009
2nd May Issue

Eur. J. Org. Chem. 2009, 2213–2372



Cover Picture / Microreview

Marco Franceschin

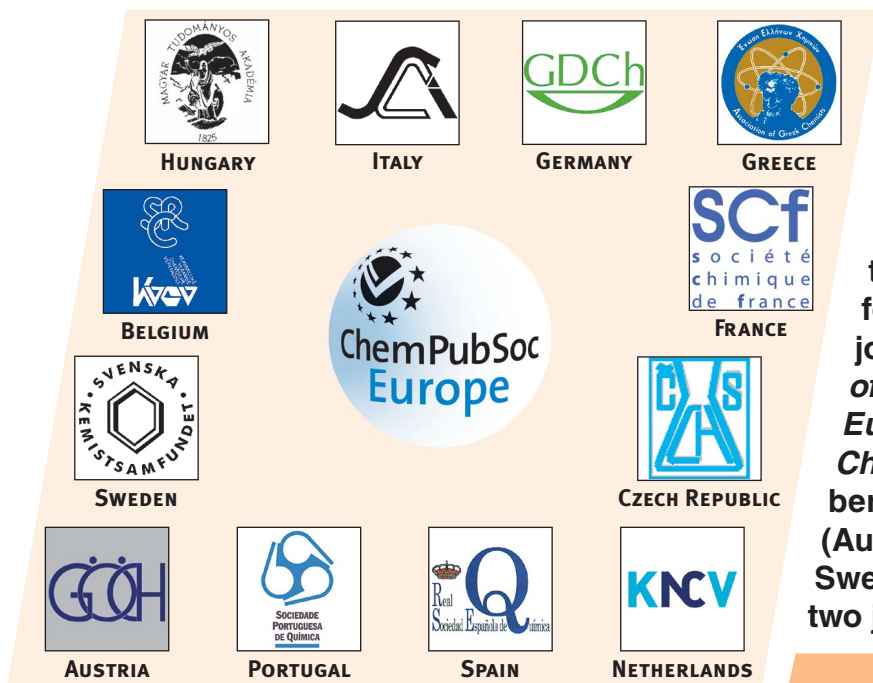
G-Quadruplexes and Organic Chemistry

A Journal of



WILEY-VCH

www.eurjoc.org



A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further members of ChemPubSoc Europe (Austria, Czech Republic and Sweden) are Associates of the two journals.

COVER PICTURE

The cover picture shows the monomeric G-quadruplex structure of the 22-mer human telomeric DNA sequence $\text{AGGG}(\text{T TAGGG})_3$ derived by X-ray crystallography in Neidle's group (G. N. Parkinson, M. P. Lee, S. Neidle, *Nature* **2002**, *417*, 876) in a potassium ion solution (PDB code 1KF1). The molecular graphic was produced by using the UCSF Chimera package from the Resource for Biocomputing, Visualization, and Informatics at the University of California, San Francisco (supported by NIH P41 RR-01081). The DNA backbone is in cyan, covered by a semitransparent meshed surface; K^+ ions are represented by violet spheres, and a yellow ribbon follows the strand topology. The four arrows indicate the related main areas of interest for organic chemists: design and synthesis of G-quadruplex ligands, study of ligand interactions with quadruplex and duplex DNA, quadruplex-forming modified oligonucleotides and nanostructures based on the G-quadruplex. In the background, the structures of some well-known G-quadruplex ligands, based on perylene, coronene, berberine, porphyrin and acridine moieties, are shown in yellow, as well as the natural compound telomestatin. Details are presented in the Microreview by M. Franceschin on p. 2225ff.

