Fluconazole (2-(2,4-difluorophenyl)-1,3-bis(1H-1,2,4-triazol-1-yl)-propan-2-ol), is a bis-triazole antifungal drug used to treat invasive infections caused by *Candida* species, can be described by the general scheme D···X -Y interactions wherein halogen atoms function as electrophilic donors, D is a neutral or anionic donor of electron density donor), D is a neutral or anionic donor of electron density, X ---Y contact to an O atom of the ONO₂ substituent takes precedence. Additional Cₛ(C₆H₄)---H...O contacts support the formation of chains in some molecules with additional Cₛ(C₆H₄)---H...O interactions in the methoxy derivatives. C---H...π interactions occur in the majority of compounds but surprisingly, despite the presence of the planar naphthyl synthon, significant π...π stacking interactions are observed only for the nitro-derivative.

**Keywords:** N-phenyl-naphthamides, structure, packing

---

**FA4-MS26-P22**

Highly Interpenetrated Organic Networks formed by Halogen Bonding  
**Giancarlo Terrano**<sup>a,b</sup>, Gabriella Cavallo<sup>c</sup>, Pierangelo Metrangolo<sup>a,b</sup>, Tullio Pilati<sup>c</sup>, Giuseppe Resnati<sup>a,b,c</sup>, "NFMLab - D.C.M.I.C. "Giulio Natta", Politecnico di Milano, Via L. Mancinelli 7, 20131 Milan, Italy, <sup>b</sup>CNST - IIT@POLIMI, Politecnico di Milano, Via G. Pascoli 70/3, 20133 Milan, Italy, <sup>c</sup>C.N.R. - I.S.T.M., University of Milan, Via C. Golgi 19, 20133 Milan, Italy  
E-mail: giancarlo.terranee@polimi.it

Halogen bonding (XB) [1], namely the noncovalent interactions wherein halogen atoms function as electrophilic species, can be described by the general scheme D--X--Y where X is the electrophilic halogen atom (Lewis acid, XB-donor), D is a neutral or anionic donor of electron density (Lewis base, XB-acceptor), and Y is carbon, nitrogen, halogen, etc. Recently, XB has proven its efficiency and reliability in the design and construction of self-assembled systems with quite different architectures and properties [2]. New aggregation processes can be realised, the novelty coming from either the molecular identity of assembled modules or from the way the modules are arranged in the supramolecular architecture. In this communication we describe the deliberate construction of highly interpenetrated organic networks. The focus will be on tetratendate tectons. In particular, we will show that DAB-dendr-(NH₃C₆F₄I)₄ self-assembles with (E)-1,2-bis(4-pyridyl)-ethylene thanks to multiple N···I interactions that drive the formation of a supramolecular architecture composed of 2D square networks with a mode of interpenetration of class la. We will show that not only tetratendate XB-donor tectons, but also tetratendate XB-acceptors (e.g. tetrapyridyl pentaerythritol or cyclobutane derivatives) give rise to highly interpenetrated organic networks (Figure [3]).

---

**FA4-MS26-P21**

**Crystal packing in a series of N-phenyl-2-naphthamide derivatives.**  
**Jim Simpson**<sup>a</sup>, Aamer Saeed<sup>b</sup>, Rasheed Ahmad Khera<sup>c</sup>, <sup>a</sup>Department of Chemistry, University of Otago, P.O. Box 56, Dunedin, 9054 , New Zealand, <sup>b</sup>Department of Chemistry, Quaid-I-Azam University, Islamabad 45320, Pakistan

Structures of seven N-phenyl-2-naphthamide derivatives