

Institute/place	Nottingham	Jülich	Cork	QM - London
PhD student	Cong Yan	Anna Strozicka	Kaliappan Muthukumar*	Aneta Dybek
Supervisor present	Philip Moriarty Karina Schulte	Bert Voigtländer	Andreas Larsson	John Dennis

* Will start in Sept./Oct. 2005, Aneta started in Jan. 2005, Anna & Cong started in August '04 and Jan. '05 respectively.

[Note added (PJM) following meeting: Konstantin Romanyuk will start a 1 year fellowship in the Juelich node in Sept. '05].

Joint Projects:

1. C₆₀/Cu(111) STM + IETS & modelling of the molecular vibrational modes (and surface-cage mode) as seen in IETS (inelastic tunneling spectroscopy)
→ **Jülich & Cork**
2. Ce@C₈₂ synthesis, STM + IETS, modelling + later expand to La@C₈₂ for comparison
→ **QM, Jülich & Cork**
3. Nanotubes filled with CoPc (Cobalt phthalocyanine) – electronic structure modelling (modelling of a linearly constrained dimer of CoPc)
→ **Nottingham & Cork**
4. N@C₆₀ – finding ways of forming an organised mono/multilayer on a substrate – Langmuir-Blodgett & Nitrogen bombardment of sublimed C₆₀
→ **Nottingham & QM**
5. Fullerene exotics – Ce₂@C₁₀₀ = (Ce₂@C₂₀)@C₈₀? Ce₃@C₈₂ = Ce₃C₂@C₈₀?
Spectroscopy (synchrotron and LT-STM)
→ **QM, Nottingham & Jülich**, could involve Cork later
6. C₆₀O – simplest functionalised fullerene: synchrotron spectroscopy, possibility for site-selective adsorption on Bi covered Si/Ge nanostructures, polymerisation.
→ **QM, Nottingham & Jülich**

Training within the NANOcage network

Cong → **Jülich**: working with LT-STM, STM spectroscopy & IETS

Cong/Karina → **QM**: N₂ bombardment of C₆₀, fullerene preparation/purification, C₈₂

Anna → **Nottingham**: learn synchrotron spectroscopy on fullerene beamtime

Aneta → **Nottingham**: training in AFM/STM techniques

Jülich ↔ **Cork** students exchange visits to learn about IETS & modelling