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Breaking & Entering : PAH photodissociation and top-down chemistry

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Breaking & Entering

PAH photodissociation and top-down chemistry

- i) Interstellar fullerenes are products of PAH photodissociation.
— *Chapters 2 & 3*
- ii) The age of photodissociation regions appears to play a key role in fullerene formation.
— *Chapter 2*
- iii) Hydrogen roaming and the formation of aliphatic-like side groups are critical in the dehydrogenation process of PAHs.
— *Chapter 4*
- iv) It is possible to efficiently form molecular hydrogen through PAH photodestruction.
— *Chapters 4 & 5*
- v) Isomerization reactions must be taken into account in astrochemical models of PAH evolution.
- vi) Perfectly shaped, unmodified PAHs are, likely, less prominent members of the interstellar PAH family.
- vii) Multidisciplinary research must be carried out with proper and respectful consideration to all its parts.
- viii) Exclusively focusing on positive results is detrimental to science.
- ix) Becoming famous as a scientist should, if it ever happens, be a consequence of the work, never a preconceived goal.
- x) Failure and frustration are excellent teachers.
- xi) Initiatives aimed towards greater diversity in science and other areas are needed not only at top levels, but also at the very first steps.
- xii) Vices help in getting through a PhD.

P. Castellanos Nash
Leiden, 28th of June, 2018