

## Pietro Tundo's most relevant publications

Elegant design and discover of new reaction mechanisms are the contribution of basic chemical sciences to Sustainable Development. The novel pathways in organic syntheses reported by the Nominee had many practical applications, as described below, and are organized into original publications, patents and books.

The first two are reviews (# 1 and 2) which highlight the contribution of Prof. Tundo to the chemistry of Organic Carbonates. Each following item is the emblematic primary or representative account of the Nominee in the different fields of his scientific activity.

### Scientific Papers

1. Tundo, P.; Musolino, M.; Aricò, F.. (2018), *The reactions of dimethyl carbonate and its derivatives*, *Green Chemistry*, vol. 20, pp. 28-85.
2. Tundo, P.; Selva, M.. (2002), *The chemistry of dimethyl carbonate*, *Accounts of Chemical Research*, vol. 35(9), pp. 706-716.
3. Cinquini M.; Montanari F.; Tundo P.. (1975), *Alkyl substituted aza-macrobicyclic polyethers....: JCS*, *Chemical Communications*, vol. 10, pp. 393-394 (New supramolecular compounds).
4. Tundo P.; Venturello P.. (1979), *Synthesis, catalytic activity, and behavior of phase-transfer catalysts supported on silica gel... Journal of the American Chemical Society*, vol. 101, pp. 6606-6613 (New immobilized phase-transfer catalysts).
5. Tundo P.. (1979), *Nucleophilic Substitution between a Gaseous Alkyl Halide and a Solid Salt...* *Journal of Organic Chemistry*, vol. 44, pp. 2048-2049. (New continuous-flow conditions in Phase-transfer catalysis).
6. Tundo P.; Fendler J. H. *et al.*. (1982), *Functionally Polymerized Surfactant Vesicles. Journal of the American Chemical Society*, vol. 104, pp. 456-461 (Polymerized vesicles).
7. Tundo P.. (1978), *Alkyl Substituted Tetraaza-Cycloalkanes ... Tetrahedron Letters*, vol. 1978, pp. 4693- 4696 (novel tetraaza ligands for metal cations in organic phase).
8. Humphry-Baker R.; Gratzel M.; Tundo P., Pelizzetti E.. (1979), *Complexes of Nitrogen-Containing Crown Ether Surfactants with Stable Silver Atoms. Angewandte Chemie*, vol. 18, pp. 630-631 (artificial photosynthesis).
9. C. A. Marques; M. Selva; P. Tundo.. (1993), *Facile Hydrodehalogenation with Hydrogen and Pd/C Catalyst under Multiphase Conditions, Journal of Organic Chemistry* vol. 58, pp. 5256-5260 (detoxification of harmful chemicals).

### Granted Patents

1. Loosen, P. C.; Tundo, P.; Selva, M. (1994), *Process for the alpha-monoalkylation of arylacetoneitriles, arylacetatesters and arylacetic acids* . US5278333. EP0525506 (A new green pharma process for API).
2. H. Bevinakatti, C. Newman, S. Ellwood, P. Tundo, F. Aricò, M. Schroeder (2013). Cyclic ether. ICI to Givaudan. US 8,536,349 B2; EU 2178871; WO2009010791 A2; Japan JP5409619; China ZL 200880024304.4; Mexico 313779. (A new green process for fragrances).
3. Aricò, F.; Tundo, P. (2018), *Process for preparing a polymer from mustard carbonate analogues* WO 2018/235046 A1. EU Pat. Appl.18746996. 0. (A new class of polymers from domesticated mustard compounds).

### Books

1. Tundo P. (1991), *Continuous flow methods in organic synthesis*, Chichester, Ellis Horwood Ltd, ISBN 0- 13-170788-4. Sole Author book. (Green methodologies in organic synthesis).
2. Tundo, P. *et al.* (2016); *Chemistry beyond chlorine*. Springer International Publishing, I- XXVI; pag. 1- 608. ISBN 978-3-319-30071-9. (Substitution of hazardous compounds in synthesis with applications).
3. Tundo, P.; Andraos, J. editors (2014), *Green Syntheses vol. 1* CRC press. I - XXII - pag. 1- 250. ISBN 978-1-4665-1320-4. (Green Metrics in Organic Synthesis).