

# Pierre-Alain Monnard

## List of Publications by Year in descending order

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Version: 2024-02-01

50  
papers

2,226  
citations

279487

23  
h-index

253896

43  
g-index

53  
all docs

53  
docs citations

53  
times ranked

1670  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Membrane self-assembly processes: Steps toward the first cellular life. <i>The Anatomical Record</i> , 2002, 268, 196-207.  | 2.3 | 243       |
| 2  | Oparin's Reactions Revisited: Enzymic Synthesis of Poly(adenylic acid) in Micelles and Self-Reproducing Vesicles. <i>Journal of the American Chemical Society</i> , 1994, 116, 7541-7547.                               | 6.6 | 240       |
| 3  | Influence of Ionic Inorganic Solutes on Self-Assembly and Polymerization Processes Related to Early Forms of Life: Implications for a Prebiotic Aqueous Medium. <i>Astrobiology</i> , 2002, 2, 139-152.                 | 1.5 | 211       |
| 4  | Eutectic Phase Polymerization of Activated Ribonucleotide Mixtures Yields Quasi-Equimolar Incorporation of Purine and Pyrimidine Nucleobases. <i>Journal of the American Chemical Society</i> , 2003, 125, 13734-13740. | 6.6 | 145       |
| 5  | Entrapment of nucleic acids in liposomes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1997, 1329, 39-50.  | 1.4 | 129       |
| 6  | Current Ideas about Prebiological Compartmentalization. <i>Life</i> , 2015, 5, 1239-1263.   | 1.1 | 125       |
| 7  | Eutectic Phases in Ice Facilitate Nonenzymatic Nucleic Acid Synthesis. <i>Astrobiology</i> , 2001, 1, 271-281.  | 1.5 | 113       |
| 8  | Nutrient uptake by protocells: a liposome model system. <i>Origins of Life and Evolution of Biospheres</i> , 2001, 31, 147-155.   | 0.8 | 83        |
| 9  | Preparation of Vesicles from Nonphospholipid Amphiphiles. <i>Methods in Enzymology</i> , 2003, 372, 133-151.  | 0.4 | 70        |
| 10 | Liposome-entrapped Polymerases as Models for Microscale/Nanoscale Bioreactors. <i>Journal of Membrane Biology</i> , 2003, 191, 87-97.   | 1.0 | 69        |
| 11 | Nucleobase Mediated, Photocatalytic Vesicle Formation from an Ester Precursor. <i>Journal of the American Chemical Society</i> , 2009, 131, 931-933.  | 6.6 | 65        |
| 12 | Prebiotically relevant mixed fatty acid vesicles support anionic solute encapsulation and photochemically catalyzed trans-membrane charge transport. <i>Chemical Science</i> , 2011, 2, 661.                            | 3.7 | 62        |
| 13 | Models of primitive cellular life: polymerases and templates in liposomes. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2007, 362, 1741-1750.  | 1.8 | 52        |
| 14 | Formation of RNA Phosphodiester Bond by Histidine-Containing Dipeptides. <i>ChemBioChem</i> , 2013, 14, 217-223.  | 1.3 | 47        |
| 15 | Metal-ion catalyzed polymerization in the eutectic phase in water-ice: A possible approach to template-directed RNA polymerization. <i>Journal of Inorganic Biochemistry</i> , 2008, 102, 1104-1111.                    | 1.5 | 44        |
| 16 | Stable Vesicles Composed of Monocarboxylic or Dicarboxylic Fatty Acids and Trimethylammonium Amphiphiles. <i>Langmuir</i> , 2011, 27, 14078-14090.  | 1.6 | 42        |
| 17 | Self-Assembly of Phosphate Amphiphiles in Mixtures of Prebiotically Plausible Surfactants. <i>Astrobiology</i> , 2014, 14, 462-472.   | 1.5 | 41        |
| 18 | Enzymatic reactions in liposomes using the detergent-induced liposome loading method. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1999, 1416, 57-68.  | 1.4 | 40        |

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|----|--|-----|-----------|
| 19 | Primordial membranes: more than simple container boundaries. <i>Current Opinion in Chemical Biology</i> , 2017, 40, 78-86.   | 2.8 | 36        |
| 20 | Eutectic Phase in Water-Ice: A Self-Assembled Environment Conducive to Metal-Catalyzed Non-Enzymatic RNA Polymerization. <i>Chemistry and Biodiversity</i> , 2008, 5, 1521-1539.                                       | 1.0 | 30        |
| 21 | Permeability-driven selection in a semi-empirical protocell model: the roots of prebiotic systems evolution. <i>Scientific Reports</i> , 2017, 7, 3141.  | 1.6 | 30        |
| 22 | Vesicle Self-Assembly of Monoalkyl Amphiphiles under the Effects of High Ionic Strength, Extreme pH, and High Temperature Environments. <i>Langmuir</i> , 2018, 34, 15560-15568.                                       | 1.6 | 30        |
| 23 | Interactions between Catalysts and Amphiphilic Structures and their Implications for a Protocell Model. <i>ChemPhysChem</i> , 2011, 12, 828-835.   | 1.0 | 26        |
| 24 | Functional Assemblies Emerging in Complex Mixtures of Peptides and Nucleic Acidâ€“Peptide Chimeras. <i>Chemistry - A European Journal</i> , 2018, 24, 10128-10135.   | 1.7 | 24        |
| 25 | Viability Conditions for a Compartmentalized Protometabolic System: A Semi-Empirical Approach. <i>PLoS ONE</i> , 2012, 7, e39480.  | 1.1 | 23        |
| 26 | Dynamics of fatty acid vesicles in response to pH stimuli. <i>Soft Matter</i> , 2015, 11, 6327-6334.   | 1.2 | 23        |
| 27 | Organic Nano-Compartments as Biomimetic Reactors and Protocells. <i>Current Nanoscience</i> , 2008, 4, 71-87.  | 0.7 | 21        |
| 28 | Catalysis in abiotic structured media: an approach to selective synthesis of biopolymers. <i>Cellular and Molecular Life Sciences</i> , 2005, 62, 520-534.   | 2.4 | 19        |
| 29 | Glass Microsphereâ€“Supported Giant Vesicles for the Observation of Selfâ€“Reproduction of Lipid Boundaries. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 282-286.                                     | 7.2 | 16        |
| 30 | Decreased Solute Entrapment in 1-Palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine Liposomes Prepared by Freeze/Thaw in the Presence of Physiological Amounts of Monovalent Salts. <i>Langmuir</i> , 1999, 15, 7504-7509. | 1.6 | 15        |
| 31 | Primitive Membrane Formation, Characteristics and Roles in the Emergent Properties of a Protocell. <i>Entropy</i> , 2011, 13, 466-484.   | 1.1 | 15        |
| 32 | Non-enzymatic Polymerization of Nucleic Acids from Monomers: Monomer Self- Condensation and Template-Directed Reactions. <i>Current Organic Synthesis</i> , 2012, 9, 735-763.  | 0.7 | 15        |
| 33 | Functionalization of Fatty Acid Vesicles through Newly Synthesized Bolaamphiphileâ€“DNA Conjugates. <i>Bioconjugate Chemistry</i> , 2014, 25, 1678-1688.   | 1.8 | 14        |
| 34 | Taming Prebiotic Chemistry: The Role of Heterogeneous and Interfacial Catalysis in the Emergence of a Prebiotic Catalytic/Information Polymer System. <i>Life</i> , 2016, 6, 40.                                       | 1.1 | 12        |
| 35 | On the Emergence of a Proto-Metabolism and the Assembly of Early Protocells. <i>Elements</i> , 2016, 12, 419-424.  | 0.5 | 12        |
| 36 | Question 9: Prospects for the Construction of Artificial Cells or Protocells. <i>Origins of Life and Evolution of Biospheres</i> , 2007, 37, 469-472.  | 0.8 | 7         |

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|----|--|-----|-----------|
| 37 | Question 5: Does the RNA-World Still Retain its Appeal After 40 Years of Research?. <i>Origins of Life and Evolution of Biospheres</i> , 2007, 37, 387-390.                            | 0.8 | 6         |
| 38 | Sliding over the Blocks in Enzyme-Free RNA Copying – One-Pot Primer Extension in Ice. <i>PLoS ONE</i> , 2013, 8, e75617.   | 1.1 | 6         |
| 39 | The origin of life and the potential role of soaps. <i>Lipid Technology</i> , 2016, 28, 88-92.   | 0.3 | 5         |
| 40 | Chemical systems, chemical contiguity and the emergence of life. <i>Beilstein Journal of Organic Chemistry</i> , 2017, 13, 1551-1563.  | 1.3 | 5         |
| 41 | Phototriggered DNA Phosphoramidate Ligation in a Tandem 5'-Amine Deprotection/3'-Imidazole Activated Phosphate Coupling Reaction. <i>Bioconjugate Chemistry</i> , 2012, 23, 2014-2019. | 1.8 | 4         |
| 42 | Bottom-Up Protocell Design: Gaining Insights in the Emergence of Complex Functions. , 2013, , 81-94.   |     | 3         |
| 43 | Assembly of a Minimal Protocell. , 2008, , 124-155.  |     | 3         |
| 44 | Membrane Self-Assembly Processes: Steps Toward the First Cellular Life. , 2011, , 123-151.   |     | 2         |
| 45 | Synthesis of Lipophilic Guanine N-9 Derivatives: Membrane Anchoring of Nucleobases Tailored to Fatty Acid Vesicles. <i>Bioconjugate Chemistry</i> , 2017, 28, 1893-1905.               | 1.8 | 2         |
| 46 | Glass Microsphere-Supported Giant Vesicles for the Observation of Self-Replication of Lipid Boundaries. <i>Angewandte Chemie</i> , 2018, 130, 288-292.                                 | 1.6 | 1         |
| 47 | Template-Directed Polymerization. , 2011, , 1651-1653.   |     | 0         |
| 48 | Lipid Protocells. , 2013, , 1280-1286.   |     | 0         |
| 49 | Template-Directed Polymerization. , 2014, , 1-3.   |     | 0         |
| 50 | Template-Directed Polymerization. , 2015, , 2470-2472.   |     | 0         |