

# Gunhild Layer

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/443707/publications.pdf>

Version: 2024-02-01

25  
papers

1,130  
citations

567281  
15  
h-index

642732  
23  
g-index

27  
all docs

27  
docs citations

27  
times ranked

1268  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Structure and function of enzymes in heme biosynthesis. <i>Protein Science</i> , 2010, 19, 1137-1161.  | 7.6  | 264       |
| 2  | Crystal structure of coproporphyrinogen III oxidase reveals cofactor geometry of Radical SAM enzymes. <i>EMBO Journal</i> , 2003, 22, 6214-6224.   | 7.8  | 259       |
| 3  | Elucidation of the biosynthesis of the methane catalyst coenzyme F430. <i>Nature</i> , 2017, 543, 78-82.   | 27.8 | 104       |
| 4  | The Substrate Radical of Escherichia coli Oxygen-independent Coproporphyrinogen III Oxidase HemN. <i>Journal of Biological Chemistry</i> , 2006, 281, 15727-15734.   | 3.4  | 73        |
| 5  | A Novel Pathway for the Biosynthesis of Heme in <i>Archaea</i>: Genome-Based Bioinformatic Predictions and Experimental Evidence. <i>Archaea</i> , 2010, 2010, 1-15.   | 2.3  | 56        |
| 6  | Structural and functional comparison of HemN to other radical SAM enzymes. <i>Biological Chemistry</i> , 2005, 386, 971-80.  | 2.5  | 47        |
| 7  | The Alternative Route to Heme in the Methanogenic Archaeon <i>Methanosarcina barkeri</i>. <i>Archaea</i> , 2014, 2014, 1-13.   | 2.3  | 47        |
| 8  | Heme biosynthesis in prokaryotes. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 118861.   | 4.1  | 40        |
| 9  | Identification of a unique Radical SAM methyltransferase required for the sp3-C-methylation of an arginine residue of methyl-coenzyme M reductase. <i>Scientific Reports</i> , 2018, 8, 7404.  | 3.3  | 34        |
| 10 | The <i>Pseudomonas aeruginosa nirE</i> gene encodes the <i>S</i>-adenosyl-l-methionine-dependent uroporphyrinogen III methyltransferase required for heme <i>d</i><sub>1</sub> biosynthesis. <i>FEBS Journal</i> , 2009, 276, 5973-5982. | 4.7  | 33        |
| 11 | Maturation of the cytochrome <i>cd</i><sub>1</sub> nitrite reductase NirS from <i>Pseudomonas aeruginosa</i> requires transient interactions between the three proteins NirS, NirN and NirF. <i>Bioscience Reports</i> , 2013, 33, .     | 2.4  | 26        |
| 12 | NirN Protein from Pseudomonas aeruginosa is a Novel Electron-bifurcating Dehydrogenase Catalyzing the Last Step of Heme d1 Biosynthesis. <i>Journal of Biological Chemistry</i> , 2014, 289, 30753-30762.                                | 3.4  | 26        |
| 13 | Co-ordination of iron acquisition, iron porphyrin chelation and iron-protoporphyrin export via the cytochrome c biogenesis protein CcmC in Pseudomonas fluorescens. <i>Microbiology (United Kingdom)</i> , 2003, 149, 3543-3552.         | 1.8  | 20        |
| 14 | The auxiliary [4Fe-4S] cluster of the Radical SAM heme synthase from <i>Methanosarcina barkeri</i> is involved in electron transfer. <i>Chemical Science</i> , 2016, 7, 4633-4643.   | 7.4  | 19        |
| 15 | The Radical SAM enzyme NirJ catalyzes the removal of two propionate side chains during heme <i>d</i><sub>1</sub> biosynthesis. <i>FEBS Journal</i> , 2017, 284, 4314-4327.   | 4.7  | 17        |
| 16 | The Crystal Structure of Siroheme Decarboxylase in Complex with Iron-Uroporphyrin III Reveals Two Essential Histidine Residues. <i>Journal of Molecular Biology</i> , 2014, 426, 3272-3286.  | 4.2  | 15        |
| 17 | Crystal Structure of Dihydro-Heme d1 Dehydrogenase NirN from Pseudomonas aeruginosa Reveals Amino Acid Residues Essential for Catalysis. <i>Journal of Molecular Biology</i> , 2019, 431, 3246-3260.                                     | 4.2  | 14        |
| 18 | Identification and characterization of a bacterial core methionine synthase. <i>Scientific Reports</i> , 2020, 10, 2100.   | 3.3  | 9         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | A Cobalamin-Dependent Radical SAM Enzyme Catalyzes the Unique C <sub>5</sub> -Methylation of Glutamine in Methyl-Coenzyme M Reductase. <i>Angewandte Chemie - International Edition</i> , 2022, 61, . | 13.8 | 8         |
| 20 | Chimeric Interaction of Nitrogenase-Like Reductases with the MoFe Protein of Nitrogenase. <i>ChemBioChem</i> , 2020, 21, 1733-1741.   | 2.6  | 5         |
| 21 | Radical SAM Enzymes Involved in Tetrapyrrole Biosynthesis and Insertion. <i>ACS Bio &amp; Med Chem Au</i> , 2022, 2, 196-204.   | 3.7  | 5         |
| 22 | Enzymatic Systems with Homology to Nitrogenase: Biosynthesis of Bacteriochlorophyll and Coenzyme F430. <i>Methods in Molecular Biology</i> , 2019, 1876, 25-35.                                       | 0.9  | 4         |
| 23 | Crystal structure of NirF: insights into its role in heme d <sub>1</sub> biosynthesis. <i>FEBS Journal</i> , 2021, 288, 244-261.  | 4.7  | 3         |
| 24 | Radical S-Adenosylmethionine Enzymes in Heme Biosynthesis. , 2020, , 349-363.   |      | 2         |
| 25 | A Cobalamin-Dependent Radical SAM Enzyme Catalyzes the Unique C <sub>5</sub> -Methylation of Glutamine in Methyl-Coenzyme M Reductase. <i>Angewandte Chemie</i> , 0, , .                              | 2.0  | 0         |