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| **S1: Influence of: a) deposition potential and , b) deposition time on the differential pulse voltammetric determination of midodrine at iron oxide nanopowder based sensor at pH 8.0, scan rate 40 mVs-1** | |

**S2: Computed molecular orbital calculations of midodrine**



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| --- | --- | --- | --- | --- |
| **Atom** | **Atom Type**  **(MM2)** | **Charge (Huckel)** | **Charge**  **(MMFF94)** | **Mulliken Charges**  **(Mopac Interface** |
| **C(1)** | **C Carbonyl** | **0.401072** | **0.569** | **0.642309** |
| **C(2)** | **C Alkane** | **-0.00752** | **0.331** | **-0.2724** |
| **O(3)** | **O Carbonyl** | **-0.79706** | **-0.57** | **-0.5669** |
| **N(4)** | **N Amide** | **0.22469** | **-0.7301** | **-0.74469** |
| **C(5)** | **C Alkane** | **0.016889** | **0.3001** | **-0.18507** |
| **C(6)** | **C Alkane** | **0.216478** | **0.4235** | **0.099466** |
| **O(7)** | **O Alcohol** | **-0.41949** | **-0.68** | **-0.58578** |
| **C(8)** | **C Alkene** | **-0.01129** | **-0.1435** | **-0.10148** |
| **C(9)** | **C Alkene** | **0.181044** | **0.0825** | **0.185397** |
| **C(10)** | **C Alkene** | **-0.10258** | **-0.15** | **-0.26534** |
| **C(11)** | **C Alkene** | **-0.10497** | **-0.15** | **-0.24325** |
| **C(12)** | **C Alkene** | **0.197488** | **0.0825** | **0.198414** |
| **C(13)** | **C Alkene** | **-0.12655** | **-0.15** | **-0.28518** |
| **O(14)** | **O Enol** | **-0.22029** | **-0.3625** | **-0.33307** |
| **C(15)** | **C Alkane** | **0.077934** | **0.28** | **-0.33188** |
| **O(16)** | **O Enol** | **-0.20089** | **-0.3625** | **-0.40377** |
| **C(17)** | **C Alkane** | **0.076559** | **0.28** | **-0.31349** |
| **N(18)** | **N Amine** | **-0.27361** | **-0.99** | **-0.81026** |

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**S3: Computed molecular orbital calculations of desglymidodrine**



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| **Atom** | **Atom Type (MM2)** | **Charge (MMFF94)** | **Charge (Huckel)** | **Mulliken Charges**  **(Mopac Interface)** |
| **N(1)** | **N Amine** | **-0.99** | **-0.28618** | **-0.80433** |
| **C(2)** | **C Alkane** | **0.27** | **0.030762** | **-0.2297** |
| **C(3)** | **C Alkane** | **0.4235** | **0.209607** | **0.129286** |
| **O(4)** | **O Alcohol** | **-0.68** | **-0.42396** | **-0.58458** |
| **C(5)** | **C Alkene** | **-0.1435** | **-0.01283** | **-0.10782** |
| **C(6)** | **C Alkene** | **0.0825** | **0.18063** | **0.167257** |
| **C(7)** | **C Alkene** | **-0.15** | **-0.10268** | **-0.26193** |
| **C(8)** | **C Alkene** | **-0.15** | **-0.10372** | **-0.24331** |
| **C(9)** | **C Alkene** | **0.0825** | **0.19669** | **0.196027** |
| **C(10)** | **C Alkene** | **-0.15** | **-0.12264** | **-0.29436** |
| **O(11)** | **O Enol** | **-0.3625** | **-0.21979** | **-0.33316** |
| **C(12)** | **C Alkane** | **0.28** | **0.077804** | **-0.33107** |
| **O(13)** | **O Enol** | **-0.3625** | **-0.19616** | **-0.38207** |
| **C(14)** | **C Alkane** | **0.28** | **0.077023** | **-0.31989** |

**S4: Electrochemical oxidation of desglymidodrine at the FeO modified electrode at pH 8**

