

Naked-Eye Detection of Morphine by Au@Ag Nanoparticles-Based Colorimetric Chemosensors

Tahereh Rohani Bastami ^{1,*}, Mansour Bayat ¹ and Roberto Paolesse ^{2,*}

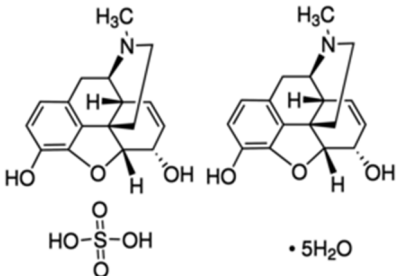
¹ Department of Chemical Engineering and Energy, Quchan University of Technology, Quchan 94771-67335, Iran; mansour.chem@gmail.com

² Department of Chemical Science and Technologies, University of Rome Tor Vergata, Via Della Ricerca Scientifica 1, 00133 Rome, Italy

* Correspondence: t.rohani@qiet.ac.ir (T.R.B.); roberto.paolesse@uniroma2.it (R.P.)

Supplementary Information

Table S1: Physicochemical properties of morphine [1].

| Drug | Chemical name and formula | Structure | So H ₂ O (25°C mg.mL ⁻¹) | pKa |
|-------------------------------------|---|--|---|-----|
| Morphine sulfate salt pentahydrate, | 7,8-Didehydro-4,5a-epoxy-17-methylmorphinan-3,6-a-diol sulfate (2:1 salt) C ₃₄ H ₄₀ N ₂ O ₁₀ S · 5H ₂ O |  | 64 | 8.5 |

References

1. Sheibani, A.; Shishehbore, M.R.; Mirparizi, E. Kinetic spectrophotometric method for the determination of morphine in biological samples. *Spectrochim. Acta Part A Mol. Biomol. Spectrosc.* **2010**, *77*, 535–538.

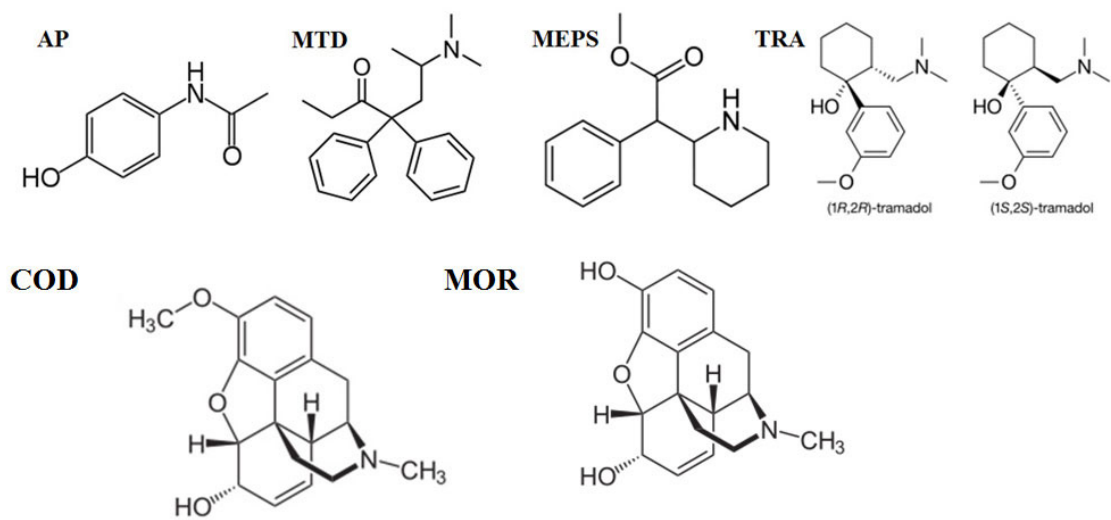


Figure S1. Chemical structure of drugs