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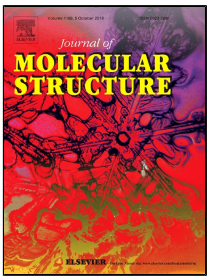

Synthesis, characterization, antimicrobial activity, carbonic anhydrase enzyme inhibitor effects, and computational studies on new Schiff bases of Sulfa drugs and their Pd(II), Cu(II) complexes

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New Schiff bases (E)-N-(3,4-dimethylisoxazol-5-yl)-4-((2-hydroxy-3-methoxybenzylidene) amino)benzenesulfonamide **(Ll),** (E)-N-(3,4-dimethylisoxazol-5-yl)-4-((2-hydroxy-4-methoxybenzylidene)amino)benzenesulfonamide **(L2)** and (E)-4-((4-methoxy-2-hydroxybenzylidene)amino)-N-(5-methylisoxazol-3-yl)benzene sulfonamide **(L3)** derived from sulfamethoxazole (S1)/sulfisoxazole (S2) and substituted salicylaldehydes and their Pd (II), Cu (II) complexes were synthesized for the first time and investigated their antibacterial activities and carbonic anhydrase enzyme inhibitor effects. Also ^{1}H and ^{13}C shielding tensors for crystal structure were calculated with GIAO/DFT/B3LYP/6-311++G(d,p) methods in $CDCl_3$.