

SUPPLEMENTARY MATERIAL TO
**Copper(II) complexes with different diamines as inhibitors of
bacterial quorum sensing activity**

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OPTICAL DATA FOR COMPLEXES Cu1–3

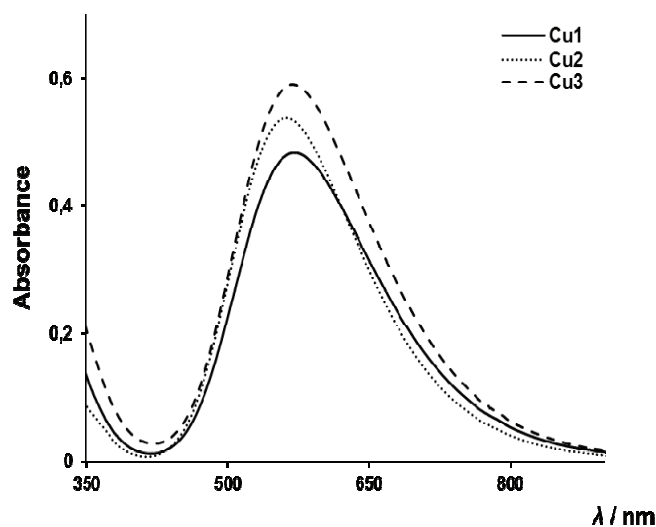


Fig. S-1. Electronic absorption spectra of the investigated copper(II) complexes **Cu1–3** measured in water ($c = 5 \times 10^{-3}$ M).

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TABLE S-I. Electronic absorption and reflectance spectral data for the copper(II) complexes **Cu1–3**. For comparison, the reflectance data for the *trans*-[Cu(2,2-diMe-1,3-pd)₂Cl₂]₂·4H₂O complex of known crystal structure is presented¹

Complex	Absorption		Reflectance
	λ / nm	ϵ / M ⁻¹ cm ⁻¹	λ / nm
Cu1	570	96.8	598
Cu2	565	107.6	584
Cu3	569	117.7	602
<i>trans</i> -[Cu(2,2-diMe-1,3-pd) ₂ Cl ₂] ₂ ·4H ₂ O ¹	–	–	589

IR SPECTROSCOPIC DATA FOR COMPLEXES **Cu1–3**

TABLE S-II. The most important IR spectroscopic data for the copper(II) complexes **Cu1–3**

Transition	Wavenumber, cm ⁻¹		
	Cu1	Cu2	Cu3
$\nu(\text{O-H})$	3350	–	3393
$\nu_{\text{as}}(\text{N-H})$	3220	3213	3231
$\nu_{\text{s}}(\text{N-H})$	3128	3120	3118
$\delta(\text{N-H})$	1587	1586	1588
$\nu(\text{Cu-N})$	367	359	365
$\nu(\text{Cu-Cl})$	411	418	420

ANALYTICAL AND MOLAR CONDUCTIVITY DATA FOR COMPLEXES **Cu1–3**

Cu1. Anal. Calcd. for C₆H₂₂Cl₂CuN₄O (FW: 300.72): C, 23.96; H, 7.37; N, 18.63 %. Found: C, 24.11; H, 7.86; N, 18.56 %; Λ_{M} (DMF, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 62.2; Λ_{M} (H₂O, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 217.0.

Cu2. Anal. Calcd. for C₁₀H₂₈Cl₂CuN₄ (FW: 338.81): C, 35.45; H, 8.33; N, 16.54 %. Found: C, 35.80; H, 8.03; N, 16.45 %; Λ_{M} (DMF, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 34.7; Λ_{M} (H₂O, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 227.0.

Cu3. Anal. Calcd. for C₁₀H₃₀Cl₂CuN₄O (FW: 356.82): C, 33.66; H, 8.47; N, 15.70 %. Found: C, 34.34; H, 8.42; N, 15.69 %; Λ_{M} (DMF, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 60.0; Λ_{M} (H₂O, $c = 1 \times 10^{-3}$ M, Ω^{-1} cm² mol⁻¹): 204.0.

REFERENCES

1. A. Wutkowski, C. Näther, W. Bensch, *Inorg. Chim. Acta* **379** (2011) 16.