



SUPPLEMENTARY MATERIALS

Fluoxetine Removal from Aqueous Solutions Using a Lignocellulosic Substrate Colonized by the White-Rot Fungus *Pleurotus ostreatus*

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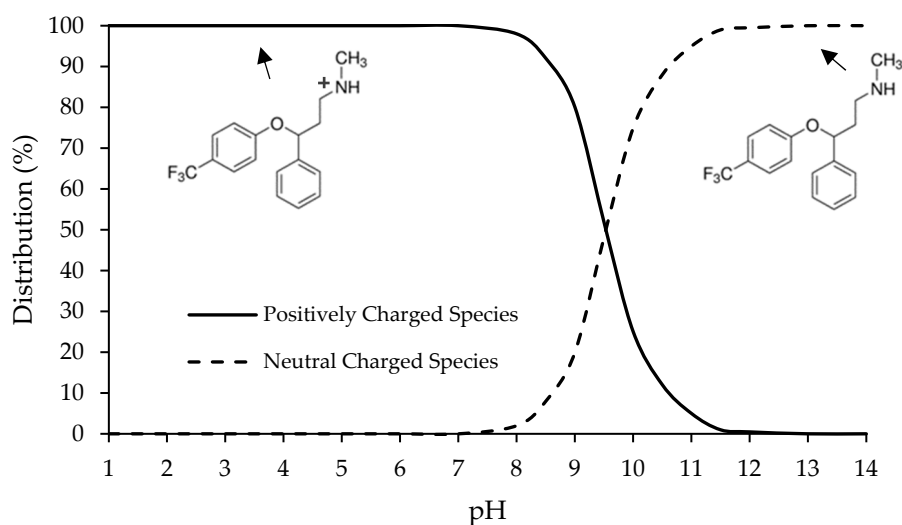


Figure S1. Species distribution diagram of fluoxetine as a function of pH (adapted from [2] and [3]).

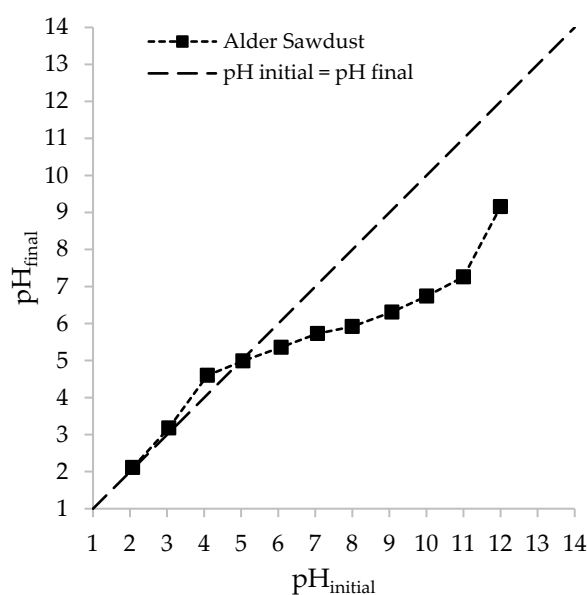


Figure S2. The point of zero charge (pH_{FZC}) determination in alder sawdust.

Table S1. Physicochemical properties of fluoxetine hydrochloride.

| Molecular formula ⁽¹⁾ | M.w. (g mol ⁻¹) | S.w. (mg L ⁻¹) | pKa ⁽¹⁾ | Log K _{ow} ⁽¹⁾ |
|---|-----------------------------|----------------------------|--------------------|------------------------------------|
| C ₁₇ H ₁₈ F ₃ NO · HCl | 345.79 | 4000 | 9.8 | 4.17 |

M.w.: Molecular weight; S.w.: Solubility in water; Ka: Acid dissociation constant; K_{ow}: Octanol-water partition coefficient.

⁽¹⁾Source [1].

Table S2. List of reagents used in the study.

| Reagent | Supplier | Country |
|---|--|---------|
| Potassium bromide (KBr, for IR spectroscopy) | PanReac | Spain |
| Potassium nitrate (KNO ₃) | Sigma-Aldrich® | USA |
| Sodium hydroxide (NaOH, purity >99.0%) | Labkem | Spain |
| Hydrochloric acid (HCl, purity 37% wt) | Honeywell Fluka™ | Austria |
| 2.6-dimethoxyphenol (2.6-DMP, purity 99%) | Labkem | Spain |
| Sodium acetate anhydrous (CH ₃ COONa, purity ≥99%) | Sigma-Aldrich | USA |
| Acetic acid glacial (CH ₃ COOH, purity ≥99.8%) | Carlo Erba | Spain |
| 1-aminobenzotriazole (1-ABT) | Sigma-Aldrich | USa |
| Ortho-boric acid (H ₃ BO ₃ , purity 100%) | VWR BDH® Chemicals | Belgium |
| Acetic acid glacial (CH ₃ COOH, purity 99.8%, density 1.0501-1.0521) | CARLO ERBA Reagents | France |
| Ortho-phosphoric acid (H ₃ PO ₄ , purity 85%, density 1.70 kg L ⁻¹) | PanReac | Spain |
| Acetonitrile (CH ₃ CN, purity 99.99%) | VWR BDH® Chemicals HPLC-super gradient | France |
| Formic acid (HCOOH, purity 99%) | CARLO ERBA Reagents | France |

Methanol (CH₃OH, purity >99.9%)VWR BDH® Chemicals HPLC-
super gradient

Netherlands

Table S3. Band assignments of FT-IR spectrum of alder sawdust.

| Band | Wavenumber (cm ⁻¹) | Band assignments ¹ | References |
|------|--------------------------------|--|------------|
| A | 3408 ± 0 | ν(O-H) | [4-8] |
| B | 2925 ± 0 | ν _{as} (CH ₂) and ν _s (CH ₂) | [4-7] |
| C | 1650 ± 1 | ν(C=O) | [4, 7-9] |
| D | 1539 ± 3 | δ(C=C) | [8] |
| E | 1401 ± 25 | δ(CH ₂) and δ(CH ₃) | [4, 8] |
| F | 1238 ± 1 | ν(C-O) | [8] |
| G | 1079 ± 52 | ν(C-O) | [4, 8, 9] |
| H | 668 ± 1 | Bending vibration modes of aromatic compounds. | [8] |
| I | 601 ± 1 | | |

¹ ν: stretching; ν_s: symmetric stretching; ν_{as}: asymmetric stretching; δ: deformation.**Table S4.** pH and temperature values recorded at the beginning and the end of batch assays.

| Assay | pH | | Temperature (°C) | |
|--------------------------|-------------|-------------|------------------|------------|
| | Beginning | End | Beginning | End |
| CMS Assays (1st day) | 6.83 ± 0.19 | 6.69 ± 0.01 | 22.0 ± 0.0 | 24.0 ± 0.0 |
| CMS Assays (15th day) | 7.01 ± 0.01 | 6.66 ± 0.03 | 20.0 ± 0.0 | 24.0 ± 0.0 |
| Biosorption Assays | 6.94 ± 0.01 | 6.46 ± 0.00 | 24.0 ± 0.0 | 25.0 ± 0.0 |
| CYP450 Inhibition Assays | 6.75 ± 0.02 | 6.74 ± 0.05 | 23.0 ± 0.0 | 24.0 ± 0.0 |
| CEE Assays | 6.68 ± 0.01 | 6.68 ± 0.01 | 24.5 ± 0.7 | 24.5 ± 0.7 |

References

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