Application of Composite Pre-Polymerized Coagulants for the Treatment of High-Strength Industrial Wastewaters

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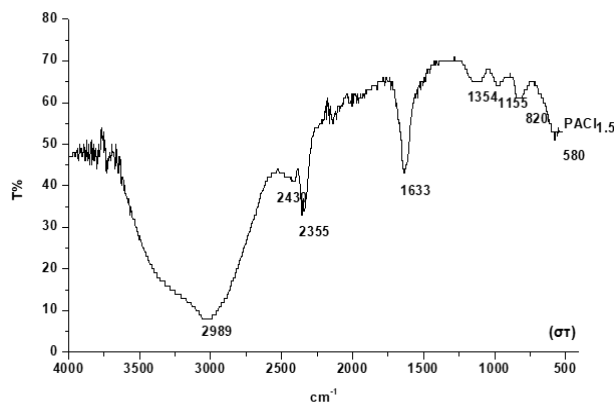* Correspondence: zoubouli@chem.auth.gr; Tel.: +30-2310-997794; Fax: +302310997730

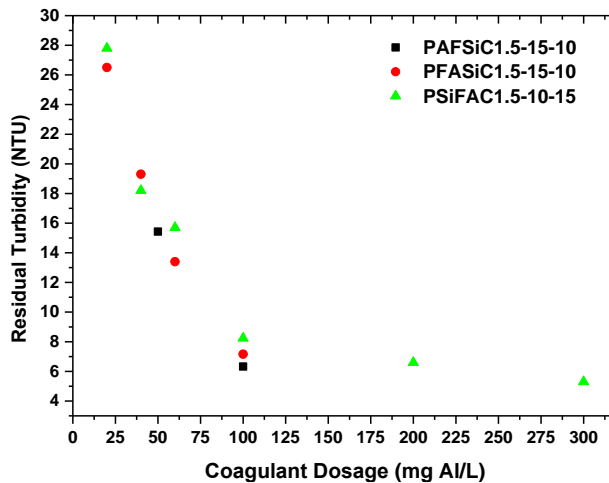**Figure S1.** FT-IR spectra of PACl$_{1.5(lab)}$, for comparison reasons.

Figure S2. Determination of optimum mixing order of the chemical components, for the coagulants PAFSiC$_{1.5-15-10}$, PFASiC$_{1.5-15-10}$ και PSiFAC$_{1.5-10-15}$, regarding the removal of turbidity, in tannery wastewater samples. The respective initial values of this wastewater were 668 NTU and pH 7.8.
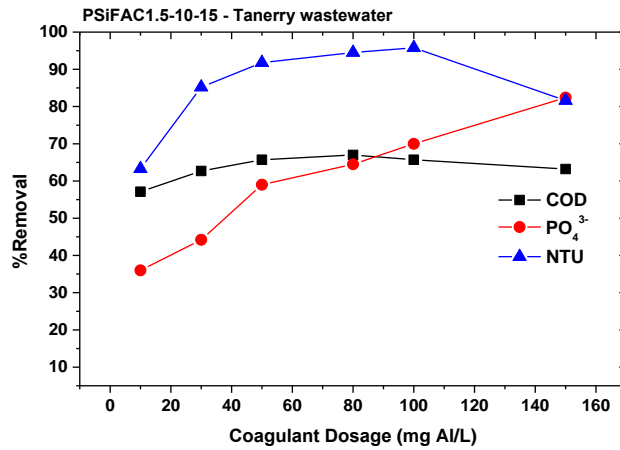
Figure S3. Removal (%) of turbidity, COD and phosphates, by applying the PSiFAC$_{1.5\text{-}10\text{-}15}$ coagulant during tannery wastewater treatment. The initial values of these parameters were 668 NTU, COD 6800 mg/L, phosphate 1.76 mg/L and pH 7.8.
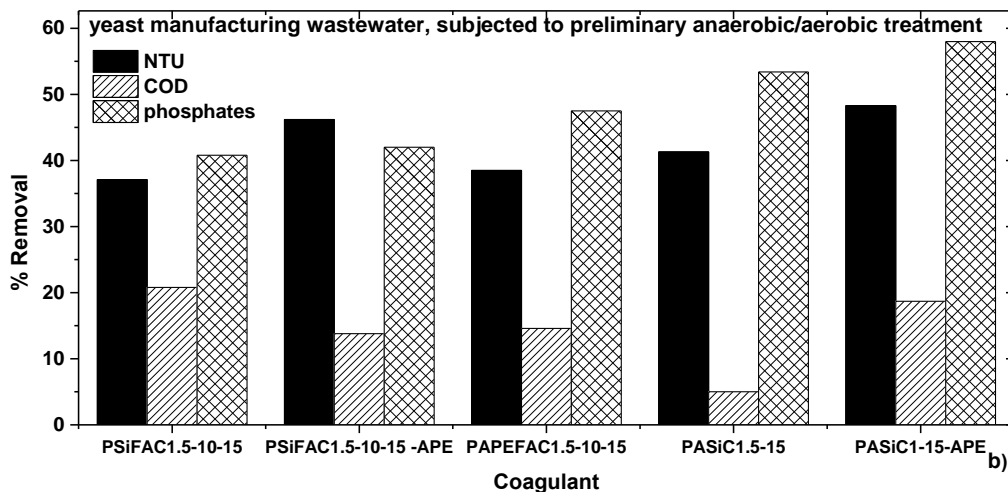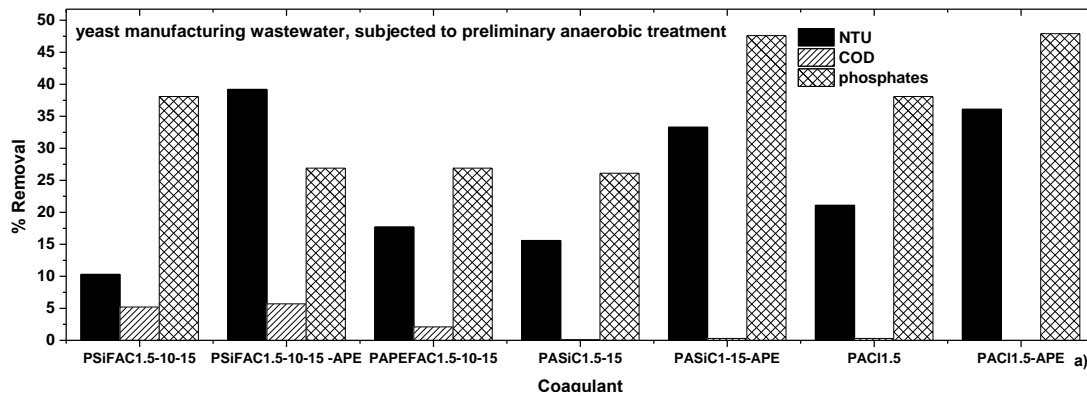

Figure S4. Removal (%) of turbidity, COD and phosphates, with the application of PSiFAC$_{1.5\text{-}10\text{-}15}$, PAPEFAC$_{1.5\text{-}10\text{-}15}$, PASiC$_{1.5\text{-}15}$, PACl$_{1.5}$ (lab) and addition of anionic polyelectrolyte (APE) as a flocculant aid, in yeast production wastewater treatment with a coagulant dose of 80 mg Al/ L, (**a**) subjected to preliminary anaerobic treatment; (**b**) the latter sample additionally subjected to aerobic treatment,. The respective initial values of wastewater samples were (**a**) 418 NTU, COD 11455 mg/L, phosphates 3.49 mg/L, pH 7.9 and (**b**) 143 NTU, COD 4590 mg/L, phosphates 2.4 mg/L and pH 8.6, for the two wastewater samples.