**Symbols and abbreviations used**

K : formation constant
$\varepsilon$ : molar absorptivity
k : rate constant
$\psi$ : wave function
$\lambda_{CT}$ : wave length at the absorbance maximum of a charge-transfer complex
$h\nu_{CT}$ : charge-transfer transition energy
$I_D$ : ionisation potential of donor
$E_A$ : electron affinity of acceptor
$\alpha$ : coulomb integral of $sp^2$-C atom
$\beta$ : resonance integral between two adjacent C-atoms in benzene
$\sum C_{rj}^2$ : eigenvector coefficient of the r-th vertex corresponding to the j-th eigenvalue
$\varphi$ : quantum yield
CT : charge transfer
EDA : electron donor-acceptor
CP : characteristic polynomial
HMO : Hückel molecular orbital
HOMO : highest occupied molecular orbital
TCNQ : tetracyano quinodimethane
TTF : tetrathiofulvalene
R-D : Rose-Drago
B-H : Benesi-Hildebrand
DPTU : N,N′-diphenylthiourea
PAH : polynuclear aromatic hydrocarbon