(s, CH_3), 1.34 (s, *t*-Bu), 1.30 (s, CH_3), 1.29 (s, CH_3), and 1.28 (s, *t*-Bu). Mass spectrum, *m/e* (relative abundance: 370 (M^+, 0.4), 220 (8), 205 (7), 152 (11), 151 (100), 123 (87), 109 (34), 95 (12), 93 (10), 91 (12), [illegible] and 70 (12). Anal. Calcd for [illegible]: C, 81.03; H, 10.33

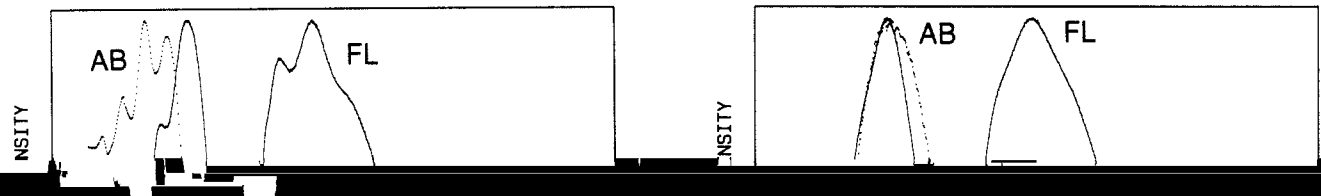
tyl)cyclopropanemethanol, and 26% 2,6-di-*tert*-butyl-4-methylphenyl *cis*-2-(*n*-butyl)cyclopropanecarboxylate after a reaction time of 34 h. Similar results were obtained with the 2-phenylcyclopropanecarboxylate esters. In contrast, both *cis* and *trans* isomers of 2,6-di-*tert*-butyl-4-

the electronic properties of such systems has required close interplay between theory and experiment

longer compounds (n = 1, 2, and 3) the presence of a low-lying $1n\pi^*$ state is inferred from the lack of fluorescence that contrasts

9.3,[28] and 4.7,[29] respectively. Trifluoroethanol and hexafluoro-2-propanol

Table I. $^1n\pi^*$ and $^1\pi\pi^*$ (1^1B_u) Transition Energies of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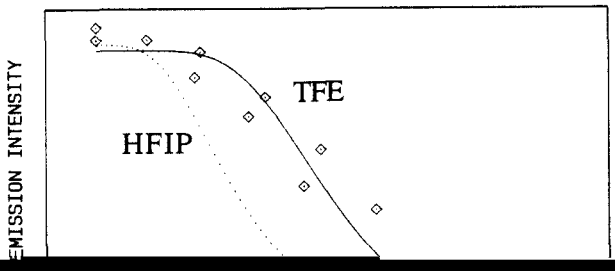

Table III. Thermodynamic Constants for Decatetraenal/Alcohol Equilibria (Eq 1)[a]

solvent	pK_a	ΔH (kJ/mol)	ΔS (J/mol K)	K_{eq} (77 K)	K_{eq} (10 K)
HFIP	9.3	−1.15 ± 0.09	−28.3 ± 2.9	0.19 ● 0.07	$\approx 10^4$
TFE	12.4	−2.26 ± 0.32	−38.2 ± 5.1	0.34 ± 0.27	$\approx 10^9$
EtOH/MeOH	16.0	−4.01 ± 0.56	−57.2 ± 7.8	0.53 ± 0.69	$\approx 10^{17}$

[a] Solvents: hexafluoroisopropyl alcohol (HFIP), trifluoroethanol (TFE), and ethanol/methanol (4:1, vol/vol).