

. Vickerstaff 'The Physical

. Zollinger

Jones Thompson

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1.

2.

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가

가

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- -

10^{-5}cm

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가

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가

가

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pad-batch

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Largh system

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transfer system . , vapour

transfer system

가 .

(circulation system)

가 .

Peters .

4

가 .

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가 .

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가 가 가

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 261 가
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a) -

b) -

- c) -
- d) -
- e) -
- f) -

(intermolecular forces) 가 .

가 .

1. (Coulombic Interactions)

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가 , ,

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가 가 .

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2. (Perturbational Forces)

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가 가

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(quantum mechanical theory)

가

가

(oscillating)

가

(perturb)

(polarizability)

. London

(dispersion force)

(spherical)

London

(dispersionenergy), W

$$W = -\frac{2}{3} \left(\frac{I_a I_b}{I_a + I_b} \right) \frac{\alpha_a \alpha_b}{\gamma_b}$$

γ

$I_a, I_b \quad \alpha_a, \alpha_b$

a, b

가 h_ν

h Planck

ν

L_{nod}

γ^{-6}

Casimir

()

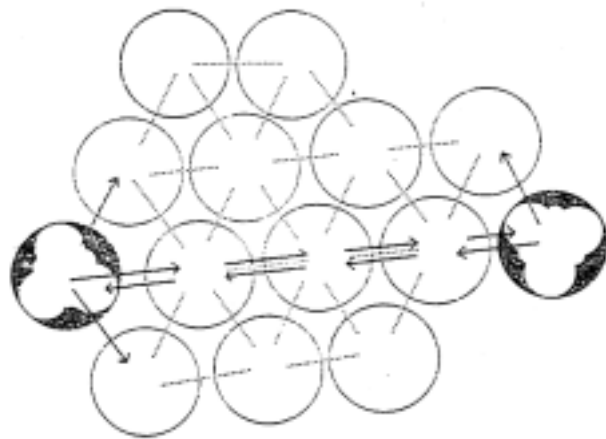
γ^{-3} 가

(γ^{-2})

2

3

가



< 1> dispersion forces operating at a distance in a three-body system owing to susceptibility differences

London

. Longuet-Higgins가

(susceptibility theory)

3. (Hydrophobic Interactions)

(polymer chemistry)

(non-polar)

가

. 1-, 2-, 3-, 4-

. 4-

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가 (),

가(가) 가 .

(envelope) .

(entropy)

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가 .

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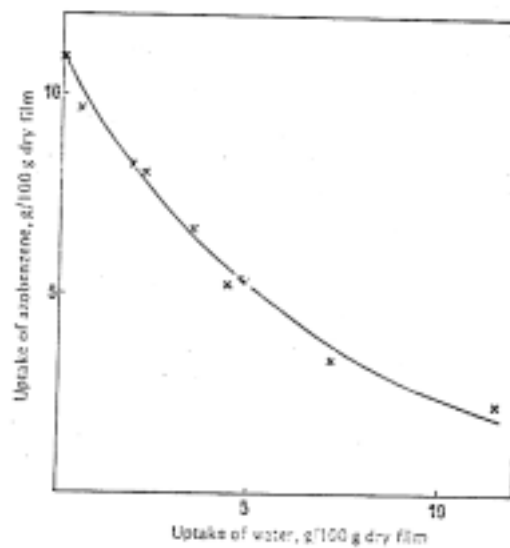
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가 . 가

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가 가 ,
가 가
가 . ,
가 .
가 - 가 .

가 . Thompson Jones



< 2> Adsorption of azobenzene from the vapour phase in the presence of water vapour by secondary cellulose acetate : effect of water binding on maximum dye uptake

2 95

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Thompson

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1/3

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가

가

20

가

가

가

(isosteric)가

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Thompson

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. Thompson

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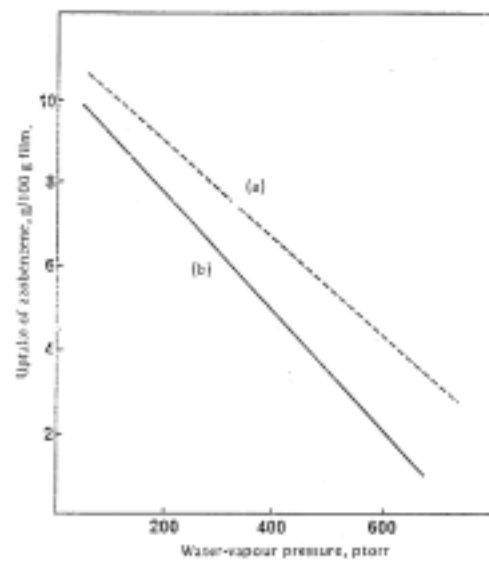
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2

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가 가

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< 3> Adsorption of azobenzene from the vapour phase in the presence of water vapour by cellulose acetate : (a) pre-equilibration with dry dye vapour ; (b) pre-equilibration with water vapour

< 1> Maximum Dye-uptake Values by Secondary Cellulose Acetate from the Vapour Phase Determined by Indirect and Direct Methods

Dye	Temp. (°C)	Maximum dye-uptake value(%)	
		By extra- polation of the isotherm	By direct measure- ment
Azobenzene	130	11.7	12.9
1-Methylamino- anthraquinone	145	10.1	8.9
	150	11.2	9.6
	155	11.3	9.3
1-Hydroxyethyl- anthraquinone	164	14.4	19.4

가

(polyhydroxylated)

(solvation process)

10^3-10^4 1

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가

가

가 가

가

가

가

가

가

가

Giles

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· Giles

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가

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가

Giles

가 (susceptibility)

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· 1950 karush

bovine serum albumen (adsorption site)

(enthalpy)

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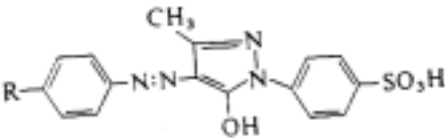
Karush 가

· Meggy

·

Zollinger

가



R

가 가 2

< 2> The effect of Various Substituents on the Exhaustion of a Model Dye on to Wool under Standard Conditions

R	Dyebath exhaustion (%)
H(CH ₂ CH ₂)—	17
OH(CH ₂ CH ₂)—	3
H(CH ₂ CH ₂) ₄ —	65
H(CH:CH) ₂ —	10
	59
	85
H	8

(C_nH_{2n-1}-)

가

(

R=phenyl)

(effective molecular area) 가 .

(cyclisation) 가 .

가 .

가 . ICI carbolan

가 . (

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(non-substantive aggregate),f .

IWS pad-batch

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(nonstaining)

(milling dye)

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