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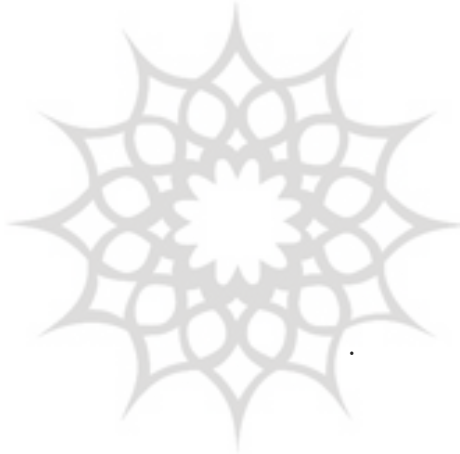
(Lewis, et al., 2008)

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Mitchell

(Mitchell, 1976)

Na⁺

Ca⁺²

(Madson

.& Mitchell, 1989)

/

)

(Bagchi,

(

.2004)

(Ebina, et al., 2004)

:

(a)

()

()

$$K = \frac{2.3aL}{At} \log \frac{h_1}{h_2}$$

A (m²)

a

t (m)

L (m²)

(m/sec)

K (sec)

h₁ h₀

A a (b)



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(Roque, & Didier,

.2005; Met et al., 2005; Shafiee, 2008)

ASTM

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()

pH

WREP-125

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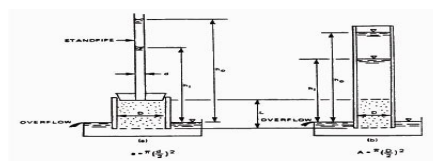
EPA

h₁ h₀

t

()

EPA



()

(EPA

)

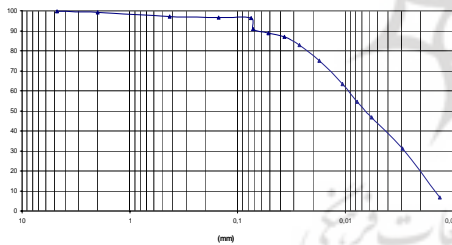
(green, and
et al., 1981; Brown, & Anderson, 1983; Perice &
Witter, 1986; Bowers, 1988; Frenandez, & Quigley,
.1991)

TDS BOD COD pH .

EC

pH

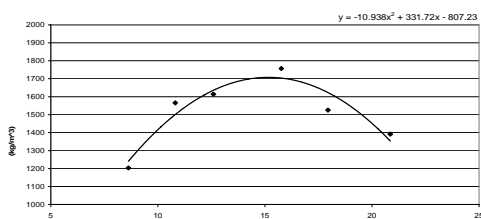
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CL-ML



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wopt +

$$\gamma_d = -10.938w^2 + 331.72w - 807.23 \Rightarrow$$

$$\gamma'_d = -21.876w + 331.72 \xrightarrow{\gamma'_d=0} w_{opt} = 15.16\%$$

WREP-125

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:()

			COD (mg/lit)
			BOD ₅ (mg/lit)
			(mg/lit)
			(mg/lit)
			(mg/lit)
			(mg cacO ₃ /lit)
/	/	/	pH
/	/	/	EC (ms/cm)
/	/	/	TDS (g/lit)

COD

COD

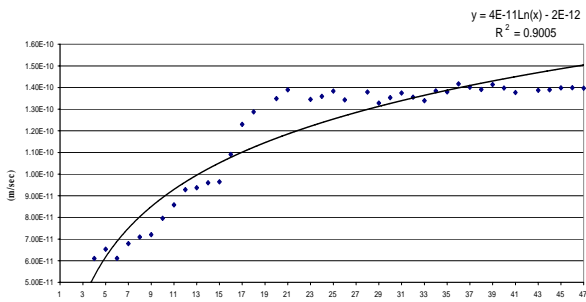
:()

EC (ms/cm)				
/	/			/
TDS (g/lit)		pH		
/	/	/	/	/

()

(EC)

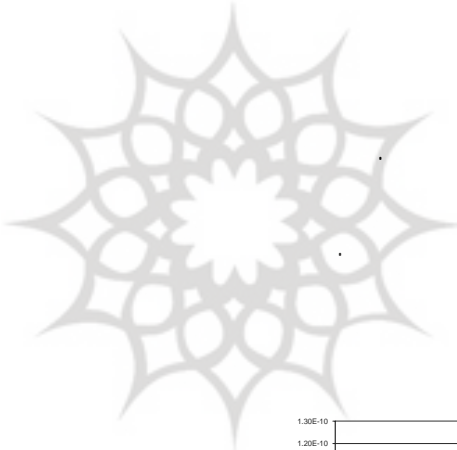
EC



:()

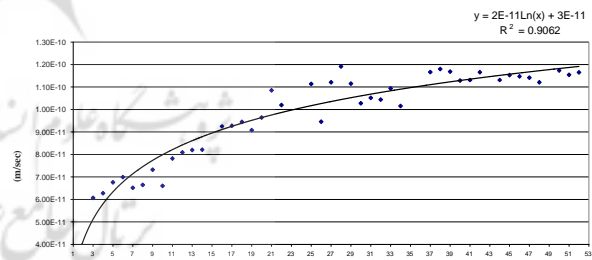
)

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pH



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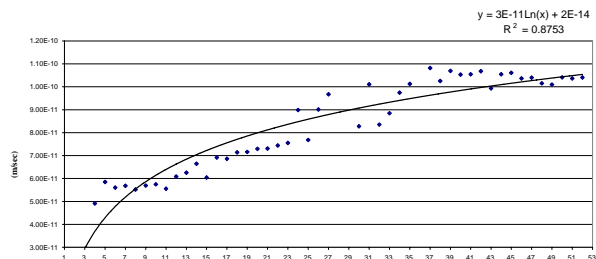
()



:()

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(R^2)			
/	$K = 2 \times 10^{-11} \ln(t) + 3 \times 10^{-11}$		()
/	$K = 2 \times 10^{-11} \ln(t) + 8 \times 10^{-12}$		
/	$K = 4 \times 10^{-11} \ln(t) - 2 \times 10^{-12}$		
	t	K	



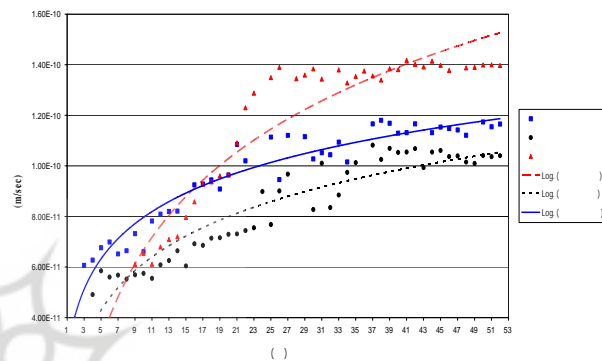
:()

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$W_{opt} +$



S

() :

EPA ASTM

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/ *

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 pH

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(EPA

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