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(FAO, 2006)

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(Doymaz, 2006)

(Schiffmann, 1992)

(Koyuncu *et al.*, 2007)

(Jaya &

Das, 2003; Kompany *et al.*, 1993)

(Askari *et al.*, 2005)

()

(Doymaz, 2005)

) / (Mazlomi *et al.*, 2008)

) (Tecator)

Kawake) (/ jp-120h airvac (Salami *et al.*, 2009)
(Micromat 725 AEG) -

PVR 0606A81)

((Zheng-Wei *et al.*, 2004)

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/ (Mohsenin, 1996) (Abbasi and Azari, 2009; Zheng-Wei *et al.*, 2004; Drouzas & Schubert, 1996; Kaensup *et al.*, 2002; Wadsworth *et al.*, 1990)

$$v = \frac{4}{3}\pi r_e^3 \quad ()$$

()

: (Wong, 2001) (Karaaslan &

Tuncer, 2008)

$$DR = \frac{MC_{t+dt} - MC_t}{dt} \quad ()$$

MC_{t+dt} () DR (Ilknur, 2007)

t MC_t () t+dt
() dt ()

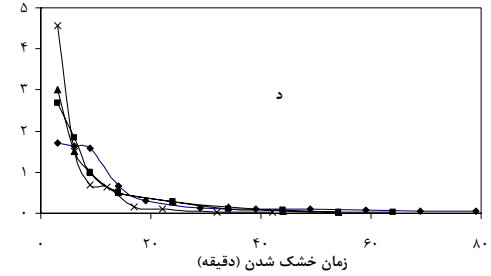
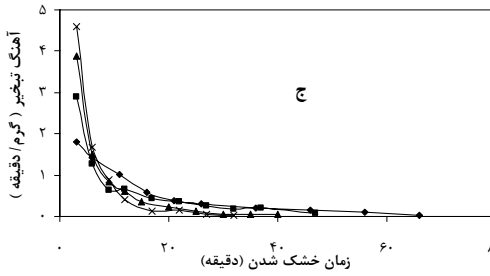
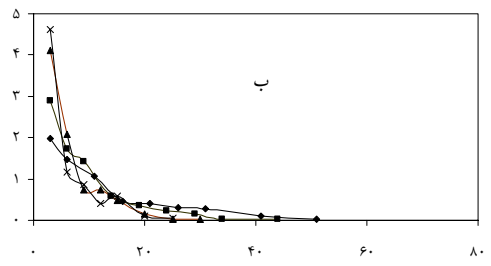
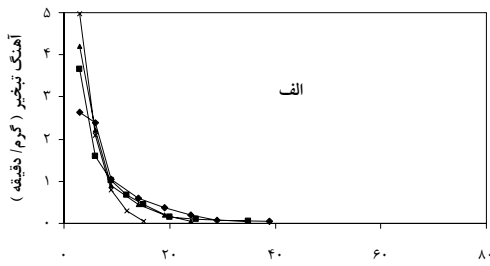
(Wong, 2001) ()

(Crank, () () +

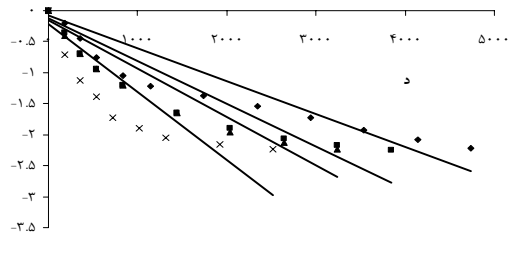
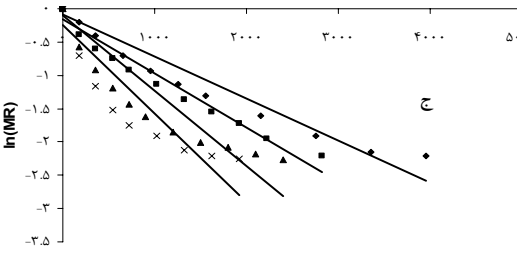
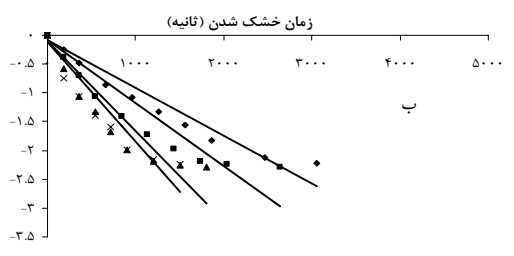
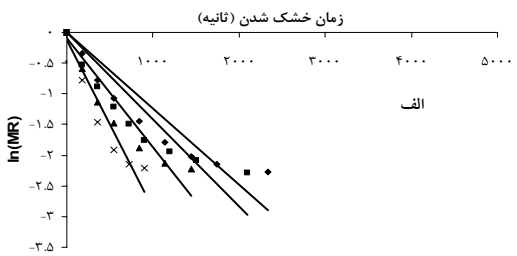
.2001)

(D₀ K₀) MATLAB t () MR
 (Dadali *et al.*, 2007; Ozbek and Dadali, 2007) r_o D_{eff}
 () () ()
 () (K) ()
 ()
 :
 $K_{th} = A.(D_{eff})_{th}$ () $\ln(MR) = \ln(\frac{6}{\pi^2}) - (\pi^2 \frac{D_{eff}t}{r_o^2})$ ()
 : ()
 $\ln(D_{eff}) = \ln(D_0) - \frac{E_a}{p} \cdot \frac{m}{1}$ () k₁
 (1/p) (lnD_{eff}) () t
 : (K₂) $k_1 = \frac{\pi^2 D_{eff}}{r_o^2}$ ()
 $K_2 = \frac{E_a}{p}$ ()
 (K)
 (m/p)
 ()
 (K)
 MATLAB (m/p)
 (Dadali *et al.*, 2007; Ozbek & Dadali, 2007)
)
 ($K = K_0 \exp(\frac{-E_a \cdot m}{p})$ ()
 (min⁻¹) (K)
 (K₀)
 (p) (W g⁻¹) E_a (min⁻¹)
 (g) (m) (W)
 ()
 (Dadali *et al.*, 2007)
 $D_{eff} = D_0 \exp(\frac{E_a \cdot m}{p})$ ()
 Maskan, 2000; Sharma & Prasad, 2001;
 (Funebo & Ohlsson,1998 ; Giese,1992; Soysal, 2004)

()



(x ▲ ■ ◆)
(((((



ln(MR) (x ▲ ■ ◆)
(((((

/ x

ln(MR)

(Rizvi, 1996)

/ x

(Shin Kim &

.Bhowmik, 1995; Sharma & Prasad, 2004)

.(Askari et al., 2005)

$D_{eff} \times 10^{-9}$ (m ² /s)	R ²	$D_{eff} \times 10^{-9}$ (m ² /s)	R ²	$D_{eff} \times 10^{-9}$ (m ² /s)	R ²	$D_{eff} \times 10^{-9}$ (m ² /s)	R ²	()
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/

P_{abs}

P

R²= /

(K)

()

(K₀)

(m/p)

()

(K)

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)

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MATLAB

(

/)

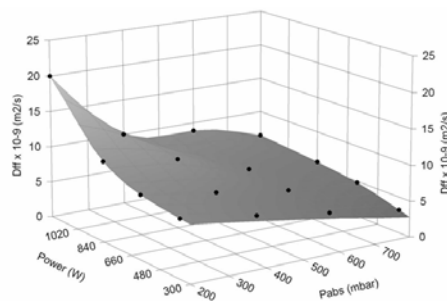
()

MATLAB

(

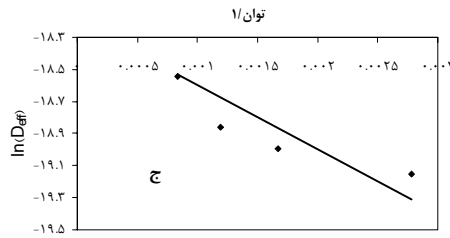
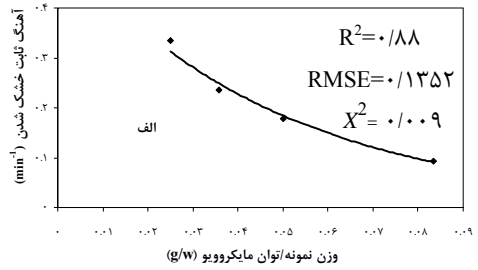
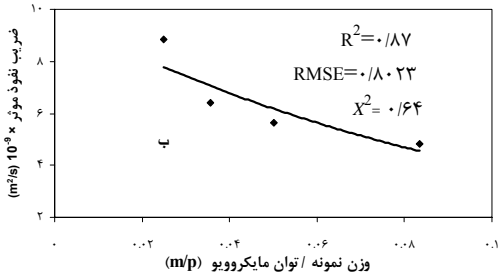
()

/



$$D_{eff} = \frac{P + P_{abs}}{P_{abs} \times P} \quad ()$$

()



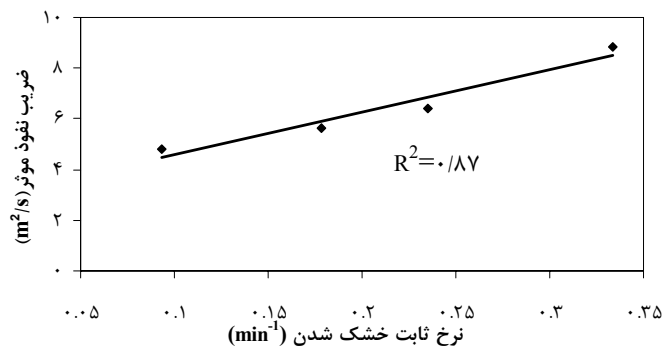
$\ln D_{eff}$ (m/p

(m/p

1/p

)

R^2	χ^2	RMSE	b (min ⁻¹)	a	n	K (min ⁻¹)
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/
/	/	/	/	/	/	/



()

(Ozbek & Dadali, 2007)

)

(1/p)

$\ln(D_{eff})$

(

(R²)

/

()

/

a, n, D₀, A, K₀

D_{eff}

Dr

dt ()

E_a

K

k₁

m ()

MC_t () t

MC_{t+dt} () t+dt

M_e (/)

M₀ (/)

MR ()

/)

M_t ()

n

P ()

P_{abs} ()

r_e ()

t ()

v ()

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