

hganji@modares.ac.ir:

// : // :

( ) ABS :

(PBM)  
R2A

(TSI)

(MacConkey agar)  
SIM (SS agar)

(O-F glucose)  
(EMB)

% % :

% / %  
% %

(Proteobacteria)

(Pseudomonas putida)  
:

ABS

- Bigey ) (Watanabe et al. 1987)  
 (et al. 1999; Kobayashi et al. 1992  
 (Wang et al.  
 (Wyatt and Knowles 1995) 2004) (ABS)  
 (Deshkar et al. 2003)
- Wyatt and ) (Deshkar et al. 2003) (Chang et al. 2006)  
 ( Knowles 1995; Wang et al. 2004 ABS  
 (Roach et al. 2004)
- (USEPA)
- : (Leeuwen and Krzyzanowski 2000)
- Li et al. ) /  
 (2007
- (Anoxic) Chekhovskaya 1980; Diane and )  
 (Acidovorax facilis B) (Speece 1991)  
 (Wang et al. 2001) (Pseudomonas nautica)
- ABS  
 (Chang et al. 2006)
- (Wang et al. 2001) AAS6  
 ABS
- (Hu et al. 1998)



pH OD

Microsoft Excel

Reasoner and) (R2A)

( Geldreich 1995

%

R2A

(Merck-1.00416) R2A

yeast )

%

( / )

( / ) ( extract

(Forbes et al. 2007)

( / )

( / )

( / )

( / )

( / )

( )

( / )

SIM (Merck-1.05470)

(O-F

(MacConkey agar-

glucose)

Merck-1.05465)

(TSI- Merck-1.03915)

PBM

(EMB- Merck-1.01347)

( SS agar- Merck-7667)

(Merck-1.04070)

TSI (PBM)

(Proteobacteria)  
(*Pseudomonas putida*)  
(Forbes et al. 2007)

pH OD<sub>600</sub> pH  
(Pharmacia-LKB-Novaspec II)

pH FID (Varian CP 3800)  
Capillary Column: CP- WAX )  
( 52 CB 25m×0.32mm×1.2µm  
(Cole Parmer)

*P. putida*

% %

OD<sub>600</sub>

pH / / / pH

pH

Li .

% /  
% /

%

(Li et al. 2007)

Wang AAS6

/

OD<sub>600</sub>

/

/

(Wang et al. 2001)

/

/

pH

*P. putida*

*P. putida*

-

%

% % %

OD<sub>600</sub>

*P. putida*

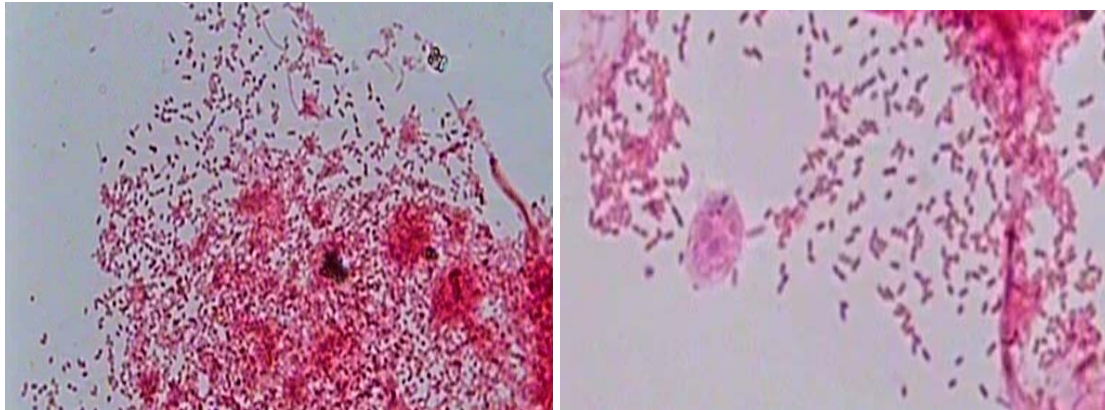
( ) Li pH

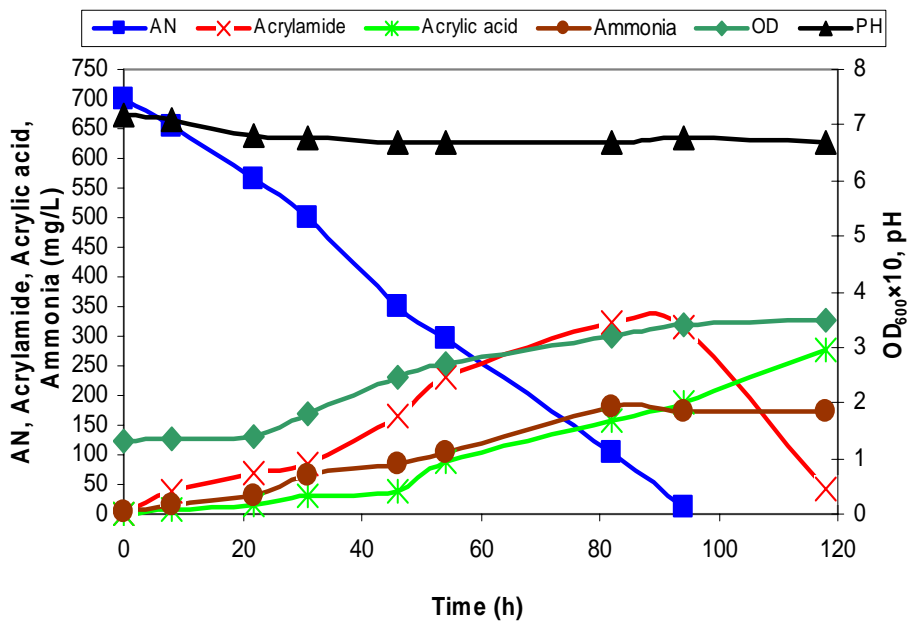
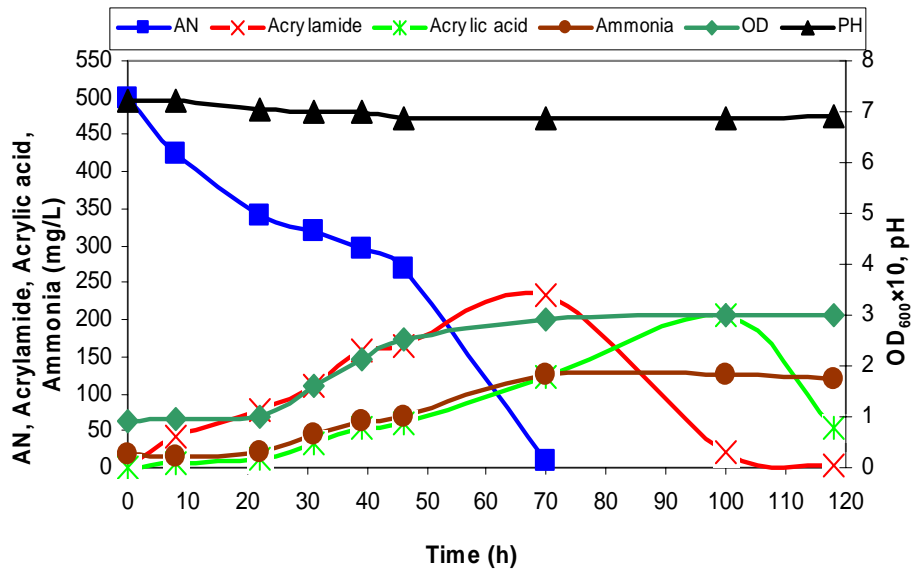
*P.* putida

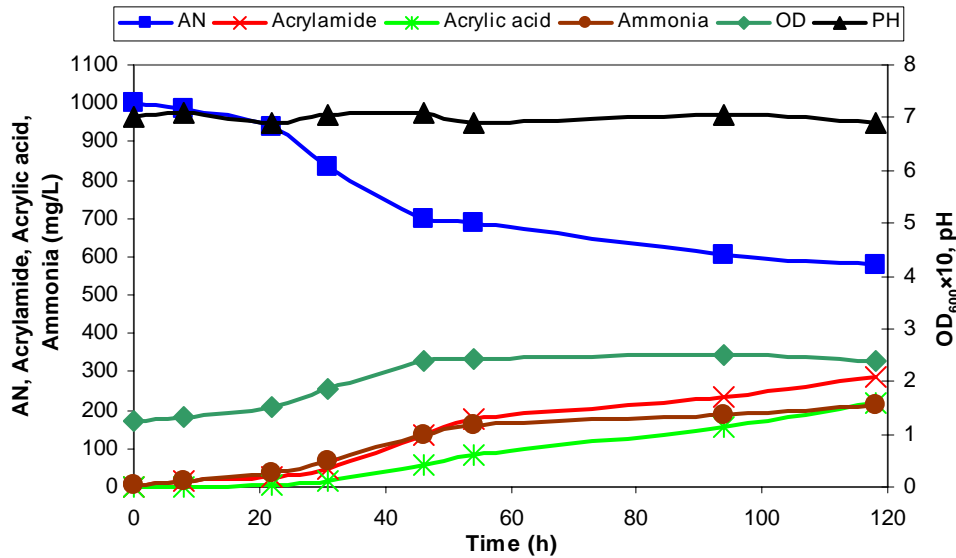
( ) ( Li et al. 2007) Li

( )

(Wang et al. 2004; Shanker et al. 1990)







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