

Al-Khwarizmi Engineering Journal, 4, 2, (2008) 51- 58

One Line Space Size 16

Title of paper (Times New Roman, Size 16, Bold)

One Line Space Size 14

Auther Name(s) (Times New Roman, Size 14, Bold)

Address of Auter (Times New Romans, Size 10,Italic)

Email: address@yahoo.com

Space Size 16

(Received 11 July2006 ; accepted 24 September 2007) (Times New Roman, Size 10)

Space Size 11

Line Width: 16.9 cm and Line Thickness: 1 pt

Space Size 11

Abstract (Times New Roman, Size 12, Bold)

Space Size 12

0.5 cm
Abstract text in Arabic script, first line.

Abstract text in Arabic script, second line.

Space Size 10

Keywords (Times New Roman, Size 10, Bold, Italic): *Keywords in Arabic script* (Times New Roman, Size 10, Italic).

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Space Size 10

1. Introduction (TNR, B, Numbered)

Space Size 12

0.5 cm
Introduction text in Arabic script, first line.

Column width
7.86cm
Times New
Romans, Size 11

1.27 cm

Introduction text in Arabic script, second line.

Column width
7.86cm
Times New
Romans, Size 11

Introduction text in Arabic script, third line.

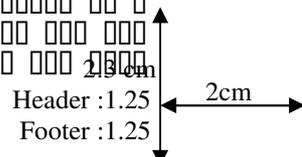
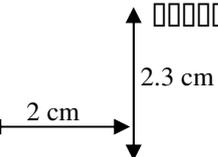
Introduction text in Arabic script, fourth line.

Introduction text in Arabic script, fifth line.

Introduction text in Arabic script, sixth line.

0.5 cm
Introduction text in Arabic script, seventh line.

Introduction text in Arabic script, eighth line.



Abstract text block

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2. Modied networks-of-zones model

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Introduction text block

ε5 = φ1 + ∂w0/∂x1 - z^2 * (4/H^2) * (φ1 + ∂w0/∂x1) ... (1)

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Table 1, (TNR, Size 10)

Table description text

Table with 3 columns: (u/g substrate), (u /g protein), (weight/ volume)

Space Size 11

Text block following table

∫(δU - δK)δt = 0 ... (2)

δU = ∫ ∫ σ1δε1 + σ2δε2 + σ3δε3 + σ6δε6 + σ5δε5 + σ4δε4 × Rdθdzdx

δK = -∫ ∫ ∫ Rρ(ü δu + v̈ δv + ẅ δw) dzdxdt

Text block at top right

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3. Experimental (TNR, Size 12, Bold)

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Experimental procedures text

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Fig. 1. (TNR, Size 10, Bold, line saping 1).

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Experimental procedures

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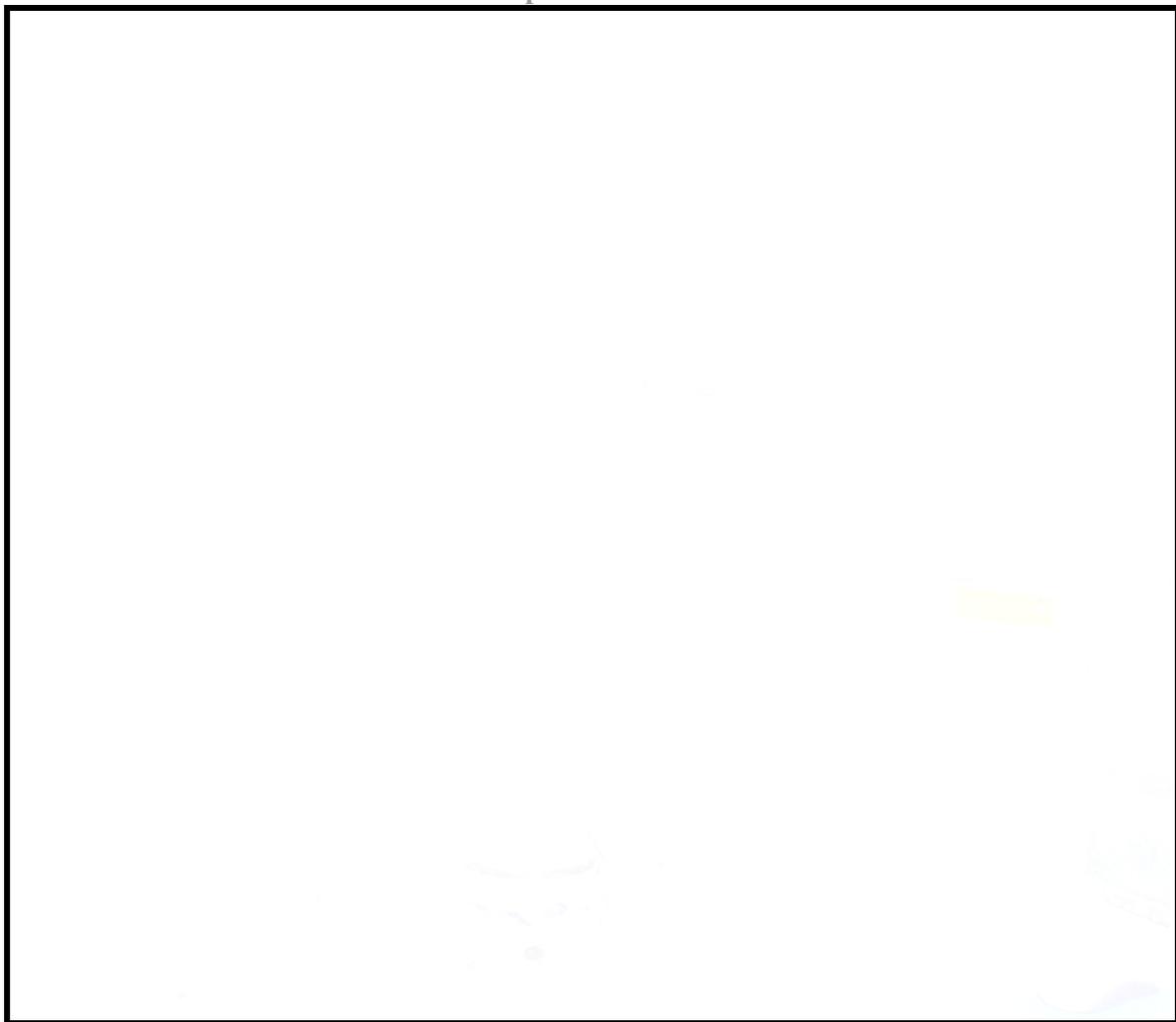
Experimental procedures text

Table 2, (TNR, Size 10)

(TNR, Size 10, Bold)

(R/a)	Theory	[0-90]		[0-90-0]		[0-90-90-0]	
		(a/H)=100	(a/H)=10	(a/H)=100	(a/H)=10	(a/H)=100	(a/H)=10
5	FST	28.825	9.230	30.993	12.372	31.079	12.437
	Present Work	28.829	9.307	30.999	12.018	31.083	12.007
	FEM	27.563	8.872	29.253	11.563	30.146	11.683
	Discrepancy%	4.3	4.7	5.63	3.67	3	2.6
10	FST	16.706	8.984	20.347	12.215	20.380	12.280
	Present Work	16.710	9.064	20.353	11.853	20.385	11.840
	FEM	16.001	8.254	19.754	11.102	19.831	11.024
	Discrepancy%	4.24	9	2.9	6.1	2.71	6.64
20	FST	11.841	8.921	16.627	12.176	16.638	12.240
	Present Work	11.847	9.002	16.634	11.811	16.643	11.798
	FEM	11.011	8.201	16.001	11.310	15.885	11.023
	Discrepancy%	7.06	8.97	3.807	4.11	4.55	6.33

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Fig. 2. (TNR, Size 10, Bold, line spacing 1).

4. Results and discussion

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Figure 3 shows a laboratory setup for the simulation. The image displays a computer monitor, a keyboard, and a mouse on a desk. A person's hand is visible near the mouse. The background is slightly blurred, showing what appears to be a laboratory or office environment.

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Fig. 3. (TNR, Size 10, Bold, line spacing 1).

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4.1. Simulation (TNR, Size 12, Bold, Italic)

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The simulation results are presented in this section. The text describes the numerical model used for the simulation, including the governing equations and the numerical methods employed. The results show the concentration profiles and the interaction intensity between neighboring streams.

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4.2. Model parameter setting

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The model parameters are set according to the experimental conditions. The parameters include the volumetric flow rate, the interaction intensity, and the tolerance. The results show that the model accurately predicts the concentration profiles and the interaction intensity between neighboring streams.

5. Conclusion

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The conclusion of the study is that the numerical model accurately predicts the concentration profiles and the interaction intensity between neighboring streams. The results show that the model is robust and can be used for a wide range of conditions.

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Notation (TNR, Size 12, Bold, line spacing 1)

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- A coefficient matrix
- C_i, C_i^* concentration and normalized concentration of i th parcel
- C, C_0 concentration vectors at $t = t$ and $t = 0$
- k coefficient vector as defined in Eq. (7)
- q volumetric flow rate of main convective stream
- t time
- v parcel volume
- $V; V_{ij}$ matrix formed by eigenvectors and its ij th component

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Greek letters (TNR, Size 12, Bold, Italic)

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- α dimensionless interaction intensity between neighboring uprising streams
- β dimensionless interaction intensity between neighboring uprising and down-coming streams
- ϵ tolerance
- λ_i i th eigenvalue
- $\lambda_{max, R}$ real and part of eigenvalue with maximum nonzero real part
- Λ diagonal matrix composed of eigenvalues
- ω reciprocal of time needed to fill an empty parcel with volumetric flow rate q

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Acknowledgements (TNR, Size 12, Bold)

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The authors would like to thank the funding agency for the support of this research. The results show that the model is robust and can be used for a wide range of conditions.

6.References

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[1] "The Role of the Islamic State in the Development of the Arab World"

[2] "The Role of the Islamic State in the Development of the Arab World"

[3] "The Role of the Islamic State in the Development of the Arab World"

[4] "The Role of the Islamic State in the Development of the Arab World"

[5] "The Role of the Islamic State in the Development of the Arab World"

[6] "The Role of the Islamic State in the Development of the Arab World"

[7] "The Role of the Islamic State in the Development of the Arab World"

[8] "The Role of the Islamic State in the Development of the Arab World"

[9] "The Role of the Islamic State in the Development of the Arab World"

[10] "The Role of the Islamic State in the Development of the Arab World"

