

// : - - - // :

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Tmax)

III

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Archive of SID

()

(Rock-Eval) -

(Behar et al. 2001)

()

(Traverse, 2007)

()

()

()

(HCL)

(HF)

()

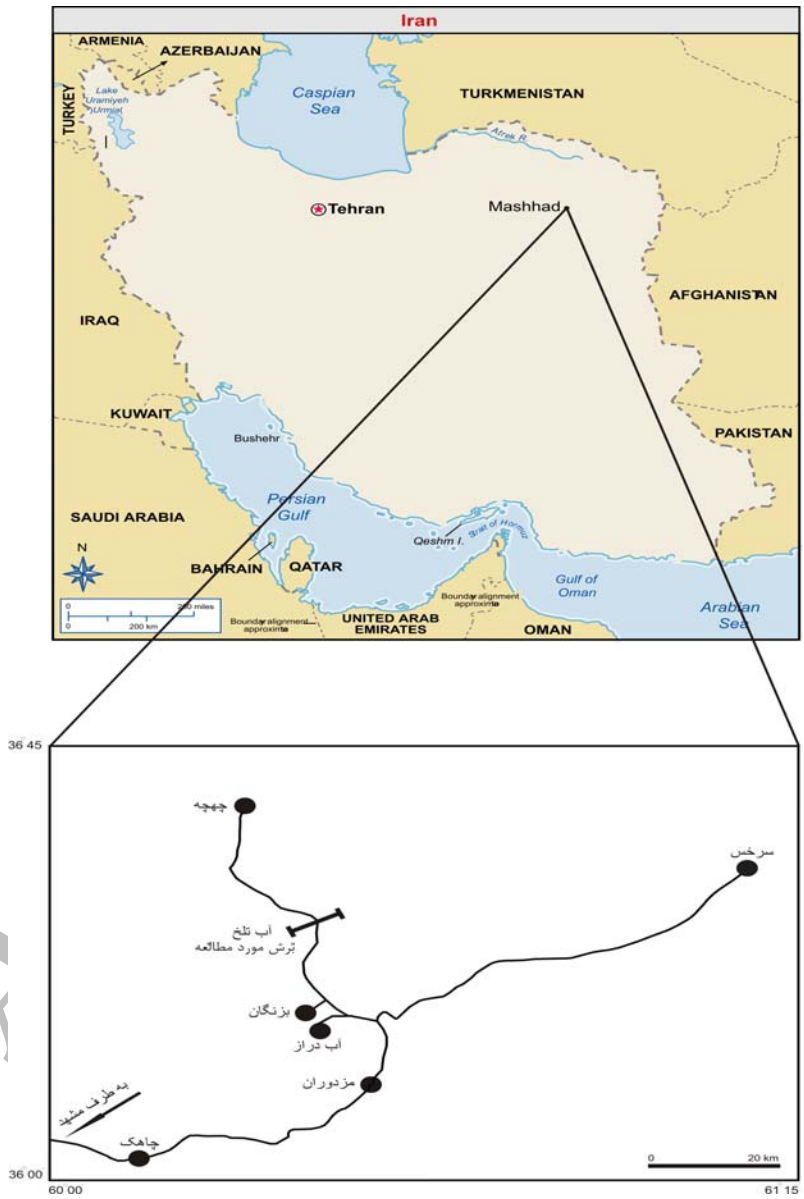
% HCl

()

()

.....(- :)

(ZnCl₂)



Achomosphaera ramulifera; *Alisogyminium euclaense*; *Andalusiella Mauthei*; *Apteodinium* sp; *Areoligera Senonenis*; *Batiacasphaeridium* sp; *Canningia* sp; *Cannosphaeridium utinensis*; *Cerodinium diebelii*; *Chatangiella biapetura*; *C. distissima*; *Circulodinium distinctum*; (Rock-Eval pyrolysis) -
Cleistosphaeridium sp; *Comasphaeridium* sp; *Conosphaeridium abbreviatum*; -
Cordosphaeridium fibrosiosum; *Coronifera oenica*; *C. striolata*; *Cribroperidinium orthoceras*; *C. globatum*; *Cyclonephelium compactum* ; *C. distinctum* ; *Diconodinium vitricornu* ; *Dinogyminium acuminatum* ; *D. sibiricum*; *D. westralium*; *Eucladinium* sp; (TOC)
Fibrocysta sp; *Florentina berran*; *F. buspina*; *F. Mangellii*; *Glaphyrocysta* sp; *G. rcticulosa* ; *G. assamica*; *Heteraulacacysta poros*; (Cutting)
Hystrichodinium pulchrum; *Hystrichokolpoma rgudia*; *Hystrichosphaeridium* sp; *H. bowerbankii*; *Hytrichosphaeridium echinatum*; (Core)
Hystrichosphaeridium tubiferum; *H. arorispinum*;
Impagidinium cristatum; *Isabelidinium Korojonense*; *Kalyptea* sp; *Kleithriasphaeridium secatum*; *Lejeunecysta* sp; *L. tricuspis*;
Microdinium cassiculus; *Odontochitina costata*; (Plate 1) :
O. diversa ; *O. operculata*; *Oligosphaeridium*

.....(- :)

AOM, MP, P

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1, 2, 3, 12, 25, 27, 28,

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II

29, 30, 31, 33, 34, 35, 37

AOM/BP

16, 19, 21,

III

22, 24, 38

AOM/BP

()

5, 7, 9, 10, 11, 13, 14, 15, 17, 18, 23,

() V

39

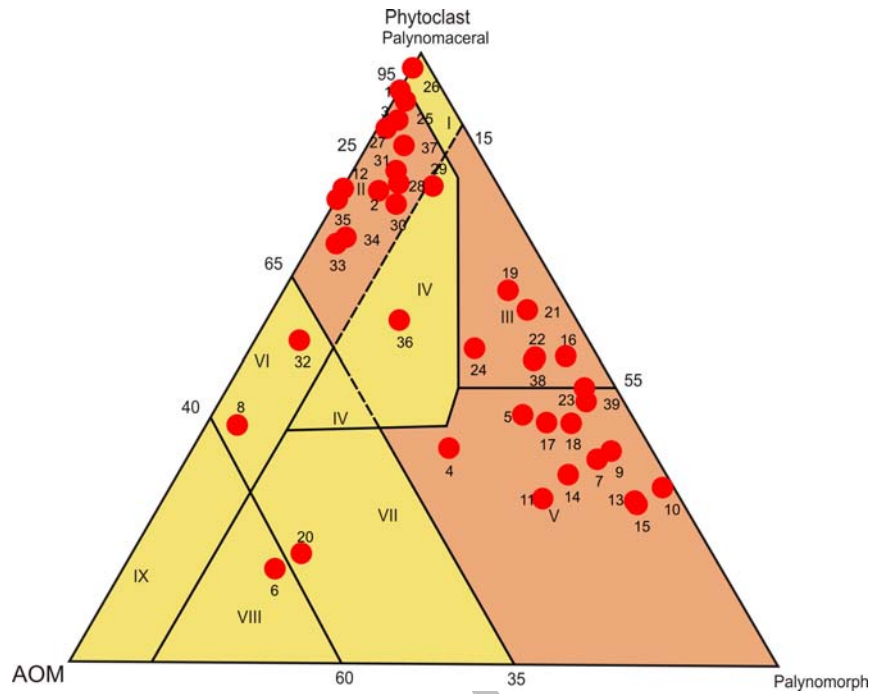
dlbertense; *O. asterigerum*; *O. comlex*; *O. diluclum*; *O. pulchrimum* ;*Operculodinium echigonese*; *Palaeocystodinium australium*; *P. bulliforme*; *P. lidiae* ; *Palynodinium grallator*; *Pervosphaeridium monasteriens*; *Phelodinium magnificum*; *Ph. tricuspe*; *Polysphaeridium laminaspinosum*; *Prolixosphaendum* sp; *Protoelipsodinium* sp; *Pseudoceratium* sp; *Sentusidinium* sp; *Spinidinium clavus*; *Spiniferites pseudoforcatus*; *S. ramosus*; *Surculosphaeridium* sp; *Tanyosphaeridium regulaer*; *Tenua* sp; *Thalassiphora pelagica*; *Trichodinium boltenhagenii*; *Xenascus ceratiuides*; *X. plotei*.

(Tyson 1987, 1989, 1993, 1995;

Batten 1996; Batten & Stead 2005)

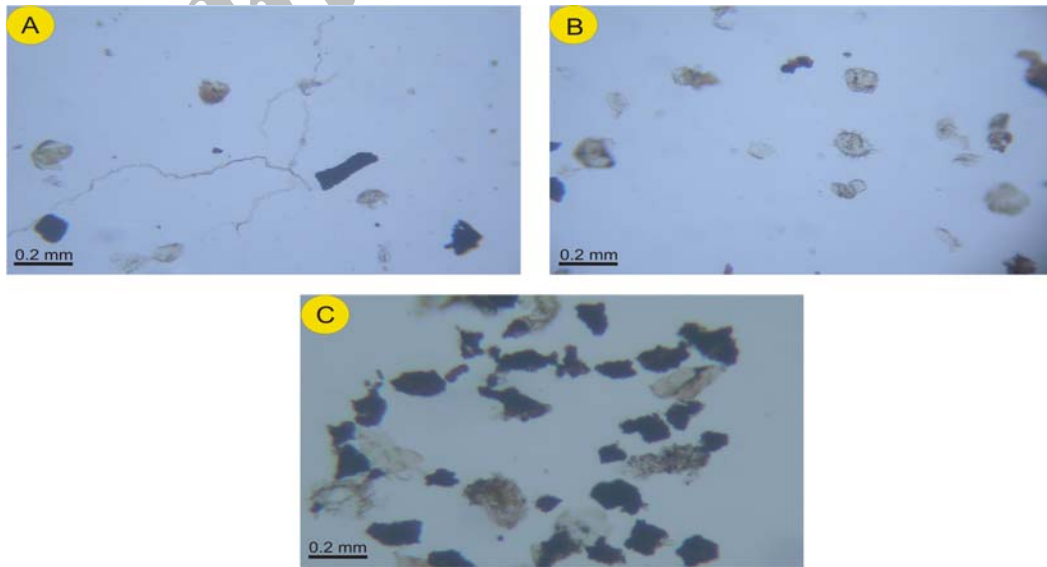
.()

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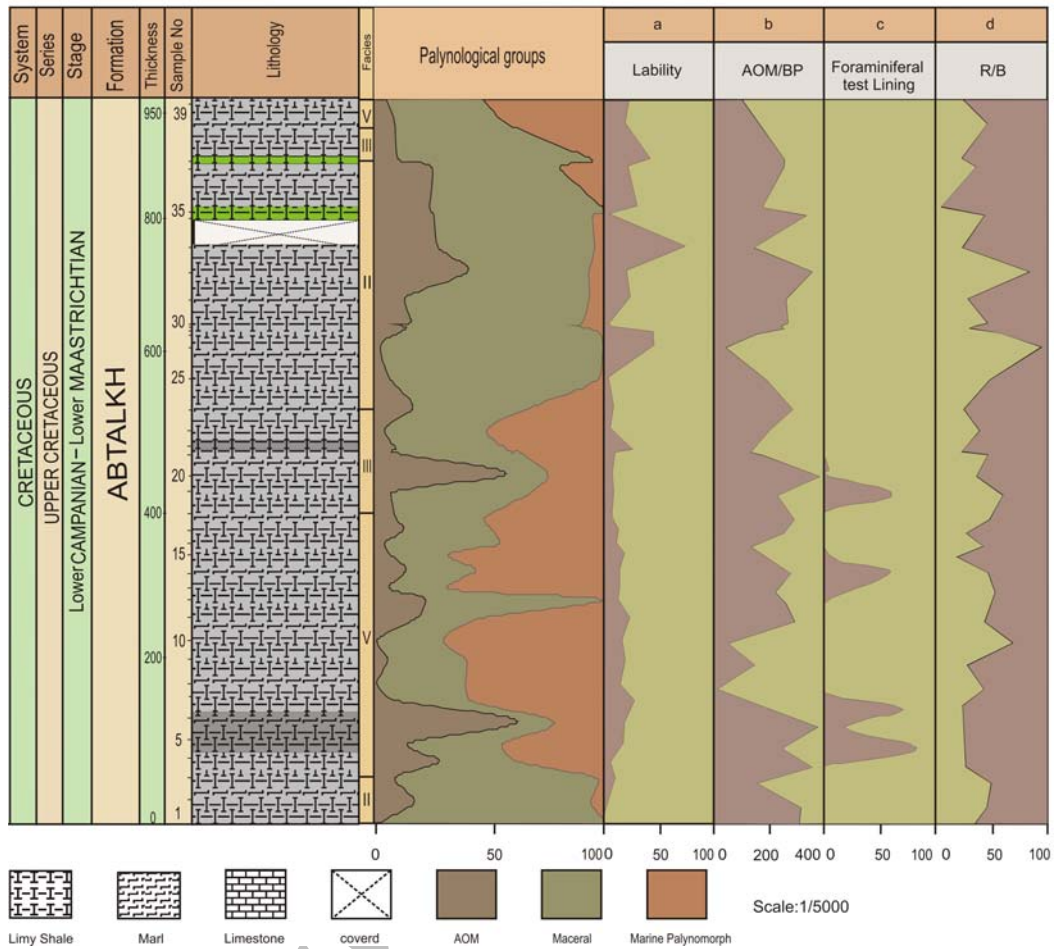
- I: High proximal shelf or basin
- II: Marginal dysoxic – anoxic basin
- III: Heterolithic oxic shelf (proximal shelf)
- IV: Shelf to basin transition
- V: Mud – dominated oxic shelf (distal shelf)
- VI: Proximal suboxic – anoxic shelf
- VII: Distal dysoxic – anoxic shelf
- VIII: distal anoxic shelf

(Tyson 1993)



(B) ; Ab21b III (A) .
 Ab2c II (C) ; Ab15c V

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Archiv

:Lability

:AOM/BP

:Foraminiferal test lining

:R/B

CO₂

(T_{Max}) (MgCO₂/gr rock)

S₂

(OI=S₃.100/TOC)

(HI=S₂.100/TOC)

(MgCO₂/gr rock)

(S₂) :

(S₃)

S.No.	%AOM	%P	%MP	Lability	AOM/BP	FTL	R/B
1	6.43	93.57	0	1.71	80	0	76.52
2	17.63	77.17	5.20	5.28	81.33	0	80.88
3	9.14	88.71	2.15	12.42	45.33	0	82.35
4	28.63	35.24	36.12	8.13	90.91	0	73.47
5	15.44	40.68	43.88	19.44	66.13	258	73.56
6	63.16	15.58	21.26	20.95	95.09	54	72.65
7	8.50	33.43	58.07	29.66	46.15	221	72.29
8	1.01	39.04	59.95	16.77	13.33	3	79.84
9	5.85	34.77	59.38	21.43	44.19	1	73.86
10	1.54	28.79	69.67	18.75	22.22	2	90.11
11	18.93	26.70	54.37	25.53	76.47	0	80.00
12	22.47	77.53	0	15.00	68.97	0	82.35
13	6.59	26.59	66.82	16.24	60.42	2	83.67
14	13.88	30.91	55.21	16.33	73.33	114	81.71
15	6.52	26.06	67.42	20.65	54.76	179	69.86
16	4.55	50.24	45.22	13.33	40.43	34	79.67
17	12.68	39.44	47.89	15.48	67.50	0	73.24
18	9.25	39.31	51.45	9.26	76.19	2	81.63
19	7.41	60.91	31.69	11.11	62.07	1	86.36
20	58.12	18.00	23.87	9.78	97.06	190	77.11
21	7.08	57.71	35.21	12.27	50.00	0	81.07
22	9.44	49.56	41.00	27.98	40.51	15	71.90
23	4.50	45.05	50.45	8.00	55.56	0	78.26
24	16.89	51.47	31.64	11.11	75.00	2	72.62
25	6.50	91.87	1.63	6.19	53.33333	0	82.08
26	2.78	97.22	0	47.06	20.00	0	100.00
27	11.49	87.36	1.15	46.15	45.45	0	85.71
28	14.19	78.38	7.43	9.09	67.74194	0	75.00
29	9.56	77.94	12.5	6.60	65.00	0	76.77
30	16.25	75	8.75	8.94	70.91	0	80.98
31	13.55	80.45	6.02	25.81	69.23	0	73.91
32	41.10	52.76	6.13	22.58	90.54	0	95.83
33	27.97	68.53	3.50	74.65	43.01	0	72.22
34	26.09	69.57	4.35	6.25	85.71429	0	80.00
35	24.24	75.76	0	32.00	50.00	0	64.71
36	25.27	56.04	18.68	23.91	67.65	0	77.14
37	10.35	84.57	5.08	43.86	67.95	0	71.88
38	9.01	50	40.99	21.00	48.78	0	81.01
39	5.36	42.86	51.79	25.00	33.33	0	72.22

:%AOM
 :%P
 :%MP
 :Lability
 :AOM/BP
 :Foraminiferal test lining
 :R/B

.....(- :)
) TOC T_{max} (PI= S_2/S_3)
 (
 (Peters & Cassa 1994)

($S_1 + S_2$) :
 S_2/S_3 HI TOC
 .(Peters & Cassa 1994) T_{max} PI

T_{max} S_2 S_1 TOC
 (HI/OI)

S_2 S_1

Sample	S1	S2	S3	T_{max}	HI	OI	TPI	TOC
2	0.08	0.05	0.67		40	558		0.12
8	0.39	1.07	0.54	417	345	174	0.27	0.31
15	0.12	0.35	0.41	428	106	124	0.26	0.33
20	0.12	0.28	0.18	434	97	62	0.3	0.29
27	0.11	0.07	0.29		58	242		0.12
32	0.08	0	0.39		0	780		0.05
36	0.07	0.01	0.33		20	660		0.05

Parameter	S_1	S_2	TOC	T_{max}
Rang	0.07-0.39	0-1.07	0.05-0.33	417-434
Average	0.13	0.26	0.18	413

-(Peters & Cassa, 1994)

Quantity	TOC (wt.%)	S1 (mg HC/g rock)	S2 (mg HC/g rock)
Poor	0-0.05	0-0.5	0-2.5
Fair	0.5-1	0.5-1	2.5-5
Good	1-2	1-2	5-10
Very good	2-4	2-4	10-20
Excellent	>4	>4	>20
Quality	HI(mg HC/g TOC)	S2/S3	Kerogen type
None	<50	<1	IV
Gas	50-200	1-5	III
Gas and oil	200-300	5-10	II/ III
Oil	300-600	10-15	II
Oil	>600	>15	I
Maturation	R _o (%)	T _{max} (°C)	TAI
Immature	0.2-0.6	<435	1.5-2.6
Early	0.6-0.65	435-445	2.6-2.7
Peak	0.65-0.9	445-450	2.7-2.9
Late	0.9-1.35	450-470	2.9-3.3
Postmature	>1.35	>470	>3.3

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(Dean)

et al. 1985)

HI (

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TOC

HI

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III

8, 15, 20

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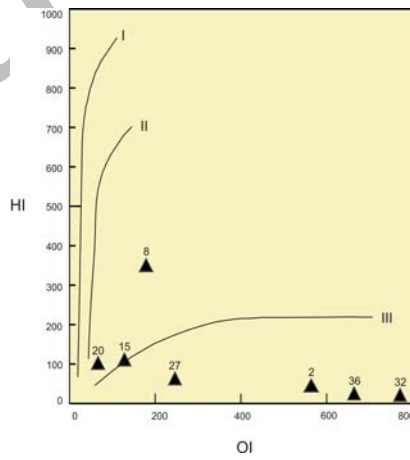
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(Jones 1987)

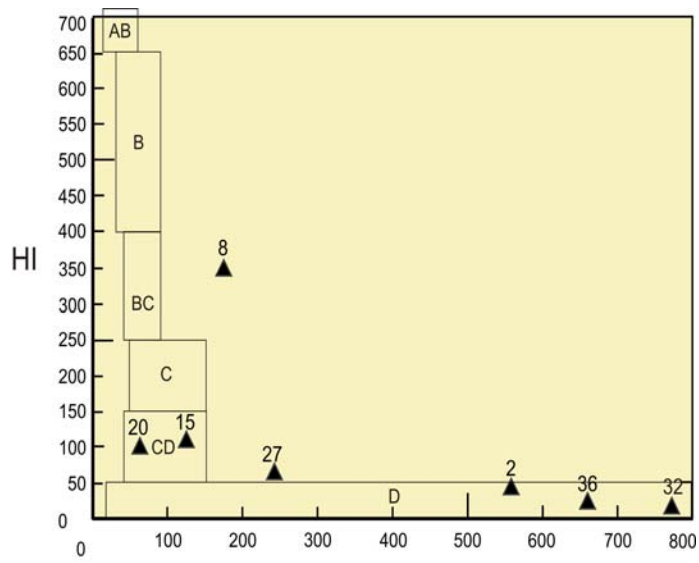
HI

OI

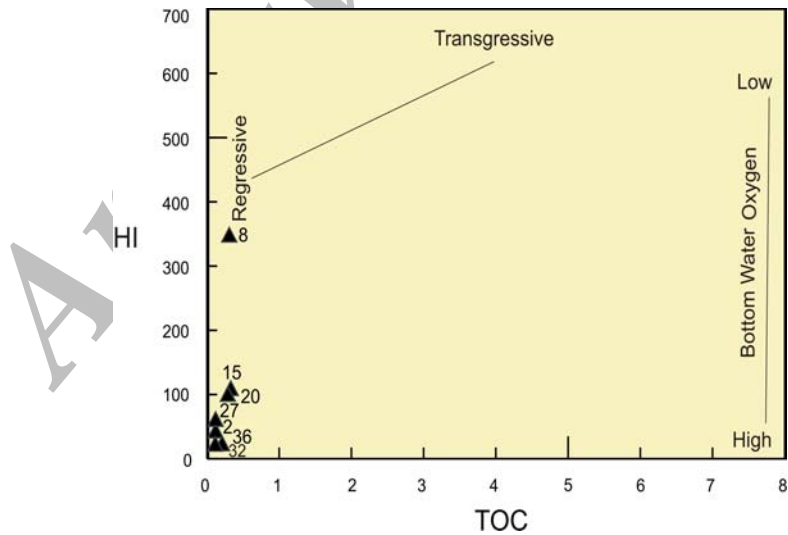
D CD



(Van Krevelen 1993)



.OI OI
 HI
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 = C
 = D = CD
 (Jones 1987)



(HI) (TOC)
 (Dean et al. 1986)

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III

T_{Max})

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