

مفهوم علم الرسوبيات

(Sedimentary Rocks)

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:(Sediments)

.(Sedimentary Rocks)

(strata)

(pores)

(%70)

: -1

(1)

) (terrigenous clastic sediments) -1
(epiclastic siliciclastic

() -2

phosphate dolomite limestone
.cherts oil shale coal

-3

.ironstones evaporites

volcaniclastic -4

Terrigenous clastic sediments	Biogenic, biochemical and organic sediments	Chemical sediments	Volcaniclastic sediments
Conglomerates and breccias, sandstones, mudrocks	Limesones (and dolomites), cherts, phosphates, coal and oil shale	Evaporites, ironstones	e.g. ignimbrites, tuffs and hyaloclastites

:(1)

: -2

(environment)

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:
:

(facies)

) lithofacies biofacies
microfacies sub-facies ()

cross- bedded	:)	-1
(stream- flood facies	:)	-2
(tidal- flat facies	:)	-3

: -1

in- situ growth debris flows turbidity currents

.sedimentary structure and texture

-2

.salinity

degree of agitation

water depth

Ph

Eh

-3

.depositional setting

-4

.organic productivity

sediment supply

facies models

sedimentary sequence

Johannes

(Law of the

Walther

Correlation of facies)

() sea level

: -3

early diagenesis

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late diagenesis

shallow burials

.subsequent uplift

deep burial

recrystallization

compaction

replacement

dissolution

authigenesis

cementation

:

micro

macro

.nano

Blatt, H., Middleton, G. and Murray, R., 1972, Origin of Sedimentary Rock, Prentice-Hall, Inc., Englewood Cliffs New-Jersey, 634P.

Tucker, M.E., 1981, Sedimentary Petrology, An Introduction, V. 3, Blackwell Scientific Publ. Oxford, 252P.