



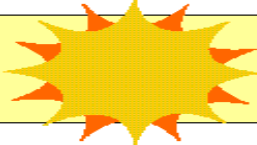


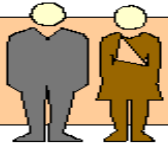
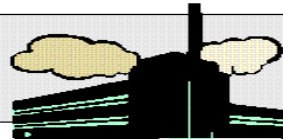
# JEM 458

# DENİZ JEOLOJİSİ

Arş. Gör. Dr. Kıymet DENİZ

13. Hafta

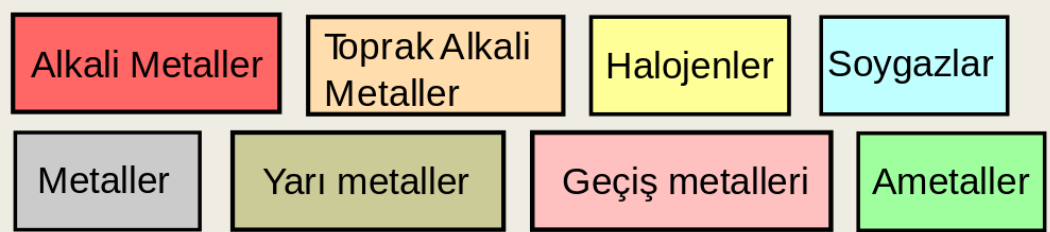
# Radiation from Natural Sources

	Source	mrem/year
	Cosmic rays	28
	The earth	26
	Radon	200
	The human body	25
	Building materials	4

Grup →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Periyot ↓	1A	2A	3B	4B	5B	6B	7B	8B	8B	8B	1B	2B	3A	4A	5A	6A	7A	8A	
1	1 H																		2 He
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F		10 Ne
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl		18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br		36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I		54 Xe
6	55 Cs	56 Ba		72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At		86 Rn
7	87 Fr	88 Ra		104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Uut	114 Fl	115 Uup	116 Lv	117 Uus		118 Uuo

Lantanidler	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
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Aktinidler	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr
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Kayaç Tipi	Potasyum (%)		Uranyum (ppm)		Toryum (ppm)	
	Ort. Değ.	Sınır Değ.	Ort. Değ.	Sınır Değ.	Ort Değ.	Sınır Değ.
Asidik Volkanitler	3.1	1.0-6.2	4.1	0.8-16.4	11.9	1.1-41.0
Asidik Plütonikler	3.4	0.1-7.6	4.5	0.1-30.0	25.7	0.1-253.1
<b>Ortaç Volkanitler (Andezit)</b>	<b>1.1</b>	<b>0.01-2.5</b>	<b>1.1</b>	<b>0.2-2.6</b>	<b>2.4</b>	<b>0.4-6.4</b>
Ortaç Plütonikler	2.1	0.1-6.2	3.2	0.1-23.4	12.2	0.4-106.0
Bazik Volkanitler	0.7	0.06-2.4	0.8	0.03-3.3	2.2	0.05-8.8
Bazik Plütonikler	0.8	0.01-2.6	0.8	0.01-5.7	2.3	0.03-15.0
Ultrabazikler	0.3	0.0-0.8	0.3	0.0-1.6	1.4	0.0-7.5
<b>Alkali Feldispatoidal Ortaç Volkanitler (Traki-andezit)</b>	<b>6.5</b>	<b>2.0-9.0</b>	<b>29.7</b>	<b>1.9-62.0</b>	<b>133.9</b>	<b>9.5-265.0</b>
Alkali Feldispatoidal Ortaç Plütonikler	4.2	1.0-9.9	55.8	0.3-720.0	132.6	0.4-880.0
Alkali Feldispatoidal Bazik Volkanitler	1.9	0.2-6.9	2.4	0.5-12.0	8.2	2.1-60.0
Alkali Feldispatoidal Bazik Plütonikler	1.8	0.3-4.8	2.3	0.4-5.4	8.4	2.8-19.6
Kimyasal Sedimanter Kayaçlar	0.6	0.02-8.4	3.6	0.03-26.7	14.9	0.03-132.0
<b>Karbonatlar (Kireçtaşları)</b>	<b>0.3</b>	<b>0.01-3.5</b>	<b>2.0</b>	<b>0.03-18.0</b>	<b>1.3</b>	<b>0.03-10.8</b>
Aşınmış Sedimanter Kayaçlar	1.5	0.01-9.7	4.8	0.1-80.0	12.4	0.2-362.0
Metamorfize Volkanik Kayaçlar	2.5	0.1-6.1	4	0.1-148.5	14.8	0.1-104.2
Metamorfize Sedimanter Kayaçlar	2.1	0.01-5.3	3.0	0.1-53.4	12.0	0.1-91.4