

PETROGENETICAL GROUPING OF THE MOST IMPORTANT SILICEOUS SEDIMENTS

Character of sediment		Way of appearance of the siliceous material		Textural image of the SiO ₂		Way of SiO ₂ precipitation		p r i m a r y														s e c o n d a r y																	
						Dominant SiO ₂ phase		Com-position		SiO ₂		Other		Adhesion		Chemical		Biogene precipitation						By replacing carbonates, tuffite and clay		By leaching of flint and siliceous limestone		By evaporation of weathering solution of magmatites and clastic sediments		By leaching of siliceous material of sandstone & aleurite									
														Quartz		Chalcedony		Recent Opal-A		Opal-A, Opal-A-		Opal-CT		Chalcedony and / or Quartz		Chalcedony		Opal and / or chalcedony microcrystalline Quartz		Opal-CT									
P u r e		Layered or laminated		Biomorphic		> 80 % 1 - 20 % carbonate and clay		Siliceous schist s.s.		Limonio-chalcedonite Limonopalite Geisirite		with Diatomes — with Radiolaria with sponge spicules		Silt Diatomaceous earth Radiolarian earth Porose spiculite		Diatomite — Radiolarite Spongiolite, spiculite		Layered chert (novaculite, lydite)		Siliceous schist s.l.		Opal-CT and (quartz) porcellanite		Tripoli		Siliceous crust		Massive opal under calcareous crust											
																														Nodular		Nodular chert (flint)		Tripoli		Siliceous crust		Massive opal under calcareous crust	
Layered		Massive		No-dular		40 - 80 % Marly Dolomitic Clayey Dolomitic Calcareous Marly		Limonio-chalcedonite Limonopalite		Jaspilite Takomite Itabirite		Diatomaceous earth Radiolarite Spongiolite Diatomite		Layered chert Nodular chert		Siliceous clay schist and tuffite		Cherty limestone etc.		Siliceous limestone etc.																			
																						Biomorphic		40 - 80 % Dolomitic Calcareous Marly Clayey Tuffaceous Calcareous Marly		Limonio-chalcedonite Limonopalite		Jaspilite Takomite Itabirite		Diatomaceous earth Radiolarite Spongiolite Diatomite		Layered chert Nodular chert		Siliceous clay schist and tuffite		Cherty limestone etc.		Siliceous limestone etc.	
Nodular		Biomorphic		10 - 40 % Limestone Marl Clay Tuffite		Limonio-chalcedonite Limonopalite		Jaspilite Takomite Itabirite		Diatomaceous earth Radiolarite Spongiolite Diatomite		Layered chert Nodular chert		Siliceous clay schist and tuffite		Cherty limestone etc.		Siliceous limestone etc.																					
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																																						Biomorphic	
Fine dispersed		Biomorphic		10 - 40 % Limestone Marl Clay Tuffite		Limonio-chalcedonite Limonopalite		Jaspilite Takomite Itabirite		Diatomaceous earth Radiolarite Spongiolite Diatomite		Layered chert Nodular chert		Siliceous clay schist and tuffite		Cherty limestone etc.		Siliceous limestone etc.																					
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																																						Biomorphic	
Sedimentation environment		Pelagic marine region		Bathyal hydro-thermae		Surface thermal spring, hot spring lakes		Sea, lagoon, lake		Pelagic and hemipelagic marine regions		Sea, lagoon, lake		Pelagic and hemipelagic marine regions		Terrestrial and lacustrine regions																							
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