

rizon separates the Semriach Formation from the St. Radegund Crystalline. In the area of St. Kathrein the Hochschlag Formation underlies the Semriach Formation.

Overlying unit(s): Schönberg Formation and Schöckel Formation (tectonic contact).

Lateral unit(s): Not known because of tectonic boundaries.

Geographic distribution: Styria, highland in the surroundings of Graz; ÖK50-BMN, map sheets 134 Passail, 135 Birkfeld, 164 Graz, 165 Weiz.

Remarks: -

Complementary references: -

Schönberg-Formation / Schönberg Formation

BERNHARD HUBMANN

Validity: Valid; re-nomination of "Arzberg Schichten" (see FLÜGEL, 2000: p. 39), formalized by FLÜGEL (2000: p. 39).

Type area: ÖK50-UTM, map sheet 4223 Weiz (ÖK50-BMN, map sheet 134 Passail).

Type section: No type section defined, but FLÜGEL (2000) selected a type region at Schönberg, northeast of Arzberg; ÖK50-BMN, map sheet 164 Graz (N 47°15'53" / E 15°31'58").

Reference section(s): -

Remarks: Characteristic of the formation is the synsedimentary lead-zinc-silver-barite-mineralization.

Derivation of name: After "Schönberg", a municipality and hill northeast of Arzberg, approx. 35 km north of Graz.

Synonyms: Partly: Grenzphyllit (CLAR, 1874); untere Schiefer (HERITSCH, 1917c); Graphitphyllitserie (SEEWANN, 1929); Tonschiefer-Fazies (FLÜGEL & MAURIN, 1952); Karbon von Waldstein (FLÜGEL, 1953a); Striatoporen-Kalk (H. FLÜGEL, 1975); dunkle, pigmentreiche Gesteine ("Schwarzschiefer") (WEBER, 1977); höhere karbonat- und kohlenstoffreiche Serie (WEBER, 1977); tiefere, grüngesteinbe-tonte Serie (WEBER, 1977); Arzberg Schichten (EBNER & WEBER, 1978); erzführende Serie (WEBER, 1990).

Lithology: Predominantly black shales and darkgrey to black limestones with high amounts of clay.

Fossils: Very rare and badly preserved tabulate corals (mostly thamnoporids).

Origin, facies: Organic carbon-rich sediments of a euxinic basin.

Chronostratigraphic age: Presumably Lochkovian–Emsian/Eifelian.

Biostratigraphy: -

Thickness: Probably more than 300 m.

Lithostratigraphically higher rank unit: Peggau Group (FLÜGEL, 2000).

Lithostratigraphic subdivision: FLÜGEL (2000) distinguished four facial types which were considered as members:

Kreuzwirt Member: Particularly dark coloured limestones and dolomites that may be intercalated with black shales; thickness up to 200 m.

Rabenstein Member: Dark grey crinoidal limestones; 30 to 50 m in thickness.

Rauchenberg Member: Carbonatic black shales; probably more than 300 m in thickness.

Weizbauer Member: Black argillaceous shales with intercalated beds of limestones and quartzites; probably between 100 and 200 m in thickness.

Pfaffenkogel Member: White biolaminated dolomites with birdseye-structures, thick bedded dolomites; up to 200 m in thickness.

Underlying unit(s): Presumably Semriach Formation and Taschen Formation.

Overlying unit(s): Schöckel Formation (tectonic contact).

Lateral unit(s): -

Geographic distribution: Styria, highland in the surroundings of Graz; ÖK50-BMN, map sheets 133 Leoben, 134 Passail, 135 Birkfeld, 163 Voitsberg, 164 Graz, 165 Weiz.

Remarks: -

Complementary references: RANTITSCH et al. (1998), EBNER et al. (2000).

Hochschlag-Formation / Hochschlag Formation

BERNHARD HUBMANN

Validity: Valid; first description by E. FLÜGEL (1957: "Hochschlagserie" and "Hochschlagkalke"); formalized by FLÜGEL (2000: p. 43; Hochschlag-Formation).

Type area: ÖK50-UTM, map sheet 4223 Weiz (ÖK50-BMN, map sheet 134 Passail).

Type section: No type section defined, but FLÜGEL (2000) selected a type region at Hochschlag, northeast of St. Erhard (Breitenau); ÖK50-UTM, map sheet 4223 Weiz (ÖK50-BMN, map sheet 134 Passail) (N 47°24'11" / E 15°30'17").

Reference section(s): -

Derivation of name: After Hochschlag (1,580 m), a mountain northeast of the Breitenau valley, approx. 55 km north of Graz.

Synonyms: Partly: Kalkschieferstufe i. A. (WAAGEN, 1937); Kalkzug der Brandlucke (NEUBAUER, 1982).

Lithology: Predominantly platy to slaty limestones with intercalations of black argillaceous shales, calcareous phyl-lites, whitish dolomites and metavolcanites.

Fossils: Rare rugose and tabulate corals.

Origin, facies: Shallow marine offshore environment.

Chronostratigraphic age: Presumably Emsian–Eifelian or Givetian.

Biostratigraphy: -

Thickness: More than 200 m.

Lithostratigraphically higher rank unit: Peggau Group (FLÜGEL, 2000).

Lithostratigraphic subdivision: -

Underlying unit(s): ?Weizbauer Member of the Schönberg Formation.

Overlying unit(s): Dornerkogel Formation (tectonic contact).

Lateral unit(s): -

Geographic distribution: Styria, highland in the surroundings of Graz; ÖK50-BMN, map sheets 134 Passail, 165 Weiz.

Remarks: -

Complementary references: -

Austrian Stratigraphic Chart 2004 - Paleozoic

(sedimentary successions)

Austrian Stratigraphic Commission



ERA	SYSTEM / PERIOD / SERIES / EPOCH	STAGE / AGE	DURATION Ma	Global Classification					
				ERATHM / ERA	SYSTEM / PERIOD / SERIES / EPOCH				
PALEOZOIC	PERMIAN	CHANGHSINGIAN / Dorashanian	251	PERMIAN	MID PERMIAN / GUADALUPIAN				
		WUCHIAPINGIAN / Dzhulfian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	UPPER PERMIAN / PENNSYLVANIAN			GZHELIAN	295	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	LOWER PERMIAN / CISURALIAN			SERPUKHOVIAN	315				
				VISEAN	320				
					325				
PERMIAN	UPPER PERMIAN / PENNSYLVANIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / CISURALIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		PERMIAN	UPPER PERMIAN / PENNSYLVANIAN	FAMENNIAN	360			PERMIAN	LOWER PERMIAN / CISURALIAN
				FRASNIAN	370				
				GIVETIAN	380				
EIFELIAN	390								
EMSIA	400								
PRAGIAN	410								
LOCHKOVIAN	420								
PERMIAN	UPPER PERMIAN / PENNSYLVANIAN			LUDFORDIAN / GORSTIAN	425	PERMIAN	LOWER PERMIAN / CISURALIAN		
				HOMERIAN / SHEINWOOD	430				
				TELYCHIAN	435				
		AERONIAN	440						
		RHUDDANIAN	445						
		HIRNANTIAN	450						
		PERMIAN	UPPER PERMIAN / PENNSYLVANIAN	UPPER ORDOVICIAN	455			PERMIAN	LOWER PERMIAN / CISURALIAN
				MIDDLE ORDOVICIAN	460				
				DARRIWILIAN	465				
				LOWER ORDOVICIAN	470				
TREMA-DOCIAN	475								
480									
485									
488.3									
PERMIAN	UPPER PERMIAN / PENNSYLVANIAN			UPPER CAMBRIAN	490	PERMIAN	LOWER PERMIAN / CISURALIAN		
				PAIBIAN	495				
		500							
		505							
		510							
		515							
		520							
		525							
		530							
		535							
CAMBRIAN	LOWER CAMBRIAN	540	CAMBRIAN	LOWER CAMBRIAN					
		542							



Legend

- pelagic, offshore, siliciclastic
- pelagic, nearshore, calcareous
- shallow marin, neritic
- terrestrial-continental, coarse clastic
- terrestrial-continental, fine clastic
- evaporite (chloride, sulphate)
- rhyolite, dacite
- (basaltic) andesite, trachyandesite
- basalt
- phyllite
- mixed-facies (in corresponding colors)
- coal (may include several seams)
- ? position/age doubtful/controversial
- | equal units
- \ older unit left \ younger unit right
- hiatus
- unconformity
- GSSP
- Fm. Formation
- Ls. Limestone

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Cutout and English adaptation of the "Die Stratigraphische Tabelle von Österreich 2004": Geological Survey of Austria

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