

**Geographic distribution:** Remschnigg, ?Sausal region, ÖK50-BMN, map sheets 190 Leibnitz, 207 Arnfels.

**Remarks:** -

**Complementary references:** SCHÖNLAUB (1979).

### Sandsteine / Sandstones

HANS P. SCHÖNLAUB

**Validity:** Invalid.

**Type area:** See remarks.

**Type section:** -

**Reference section(s):** -

**Derivation of name:** After the dominant lithology.

**Synonyms:** -

**Lithology:** Red quartz-sandstones and dark-grey silty shales.

**Fossils:** -

**Origin, facies:** Molasse-type sedimentation.

**Chronostratigraphic age:** -

**Biostratigraphy:** -

**Thickness:** Unknown.

**Lithostratigraphically higher rank unit:** -

**Lithostratigraphic subdivision:** -

**Underlying unit(s):** See remarks.

**Overlying unit(s):** -

**Lateral unit(s):** -

**Geographic distribution:** ÖK50-UTM, sheet 4110 Eibiswald, upper part of Lieschen creek (eastern margin of ÖK50-BMN, map sheet 206 Eibiswald; red sandstones also on ÖK50-BMN, map sheet 207 Arnfels) south of Leutschach.

**Remarks:** A sequence of red sandstones has been found in the Remschnigg area of southern Styria overlying the fossiliferous Silurian to Devonian sequence attributed by EBNER (1987) to the Murau and Stolzalpen Nappes of the Gurktal Thrust Sheet. The true relationship between the basement and the cover is unclear due to tectonic overprints. The clastic sequence starts with dark-grey silty shales and red quartz-sandstones which are correlated with the Werchzirm Formation of middle Carinthia.

**Complementary references:** -

### Südburgenland / Southern Burgenland

The Paleozoic of southern Burgenland is represented by two units which are outcropping at the Hohensteinmaißberg (south of Kirchnfidisch), near Sulz, in the Punitz woods and at the Königsberg near Hannersdorf. Additionally, the sequence is documented by drill cores taken in the 1970s (EBNER, 1978b, 1988). Based on these cores "subsurface units" in Styria, which were correlated with the sections at Sulz and Hannersdorf by EBNER (1988: Fig. 4), were named "Blumauer Phyllit-Karbonat-Formation" and "Arnwiesener Gruppe" by FLÜGEL (1988).

In general, the unit is represented by small tectonic windows which were called "Schieferinseln" (HOFFMANN, 1877) within a tectonically displaced nappe almost completely covered by Neogene sediments. A total thickness is estimated with approx. 500 m (mainly phyllitic shale, limestone and dolomite). According to strong faulting, repetition of the sequence within the relatively thick shale intervals cannot be excluded. The composite section ranges from Silurian to Lower/Middle Devonian. Until now, Pridoli to Emsian is proven by microfossils (SCHÖNLAUB, 1994; SUTTNER, 2009a). Due to facies and fossil content, shallow marine, neritic conditions dominate the depositional environment.

Although the relationship and original distance of the Paleozoic deposits of southern Burgenland to that of adjacent nappes remain unclear, lithostratigraphic equivalents are suggested with neritic units of the Graz Paleozoic (FLÜGEL, 1988) and outcrops in Hungary (compare SCHÖNLAUB, 2000a: p. 35).

#### Dolomite und Schiefer des Hochsteinmaißberg und von Sulz / Dolomites and shales from the Hochsteinmaißberg and from Sulz

THOMAS J. SUTTNER

**Validity:** Informal unit; first observed by HOFFMANN (1877); detailed description is provided by POLLAK (1962) and SCHÖNLAUB (1984a, 1994).

**Type area:** ÖK50-UTM, map sheets 5220 Rechnitz, 5225 Fürstenfeld, 5226 Kohfidisch (ÖK50-BMN, map sheets 166 Fürstenfeld, 167 Güssing, 168 Eberau).

**Type section:** -

**Reference section(s):** Hohensteinmaißberg near Kirchnfidisch (Baron von Kottwitz quarry, N 47°09'01" / E 16°21'10"), Sulz (abandoned quarry, N 47°04'43" / E 16°15'57"), Punitz Woods (abandoned quarry, N 47°08'07" / E 16°21'32") compare SCHÖNLAUB (1984a, 1994); Waltersdorf 1 (drill core), Blumau 1 and 1a (drill cores), Fürstenfeld TH 1 (drill core), Litzelsdorf (drill core) compare EBNER (1988).

**Derivation of name:** After lithologic units outcropping at the Hohensteinmaißberg and near Sulz.

**Synonyms:** Phyllit-Kalkschiefer und Dolomit-Kalkkomplex (POLLAK, 1962); Hannersdorfer Komplex (SCHMIDT, 1983); Blumauer Phyllit-Karbonat-Formation (FLÜGEL, 1988) [this formation name was suggested by FLÜGEL (1988) based on drill cores Blumau 1 and 1a (EBNER, 1988)]; Blumau-Formation (SCHÖNLAUB, 1994 sensu FLÜGEL, 1988).

**Lithology:** Phyllitic shale, calcareous marl, laminated limestone, dolomitic limestone and dolostone, bedded limestone with thin interbeds of brownish silt.

**Fossils:** Brachiopods, conodonts, corals (rugose and tabulate), echinoderms, gastropods, ostracods, serpulids, sponge spicules.

**Origin, facies:** Marine, neritic unit.

**Chronostratigraphic age:** Hence the age of the dolomites from Sulz is documented by conodonts ranging from middle Silurian to Lower Devonian, a Sheinwoodian–Lochkovian age is suggested for this unit (SCHÖNLAUB, 1984a: p. 504).

**Biostratigraphy:** Additionally to the conodont assemblage from Sulz (SCHÖNLAUB, 1984a), the *eosteinhornensis*? and *woschmidti* conodont zones are documented from a short

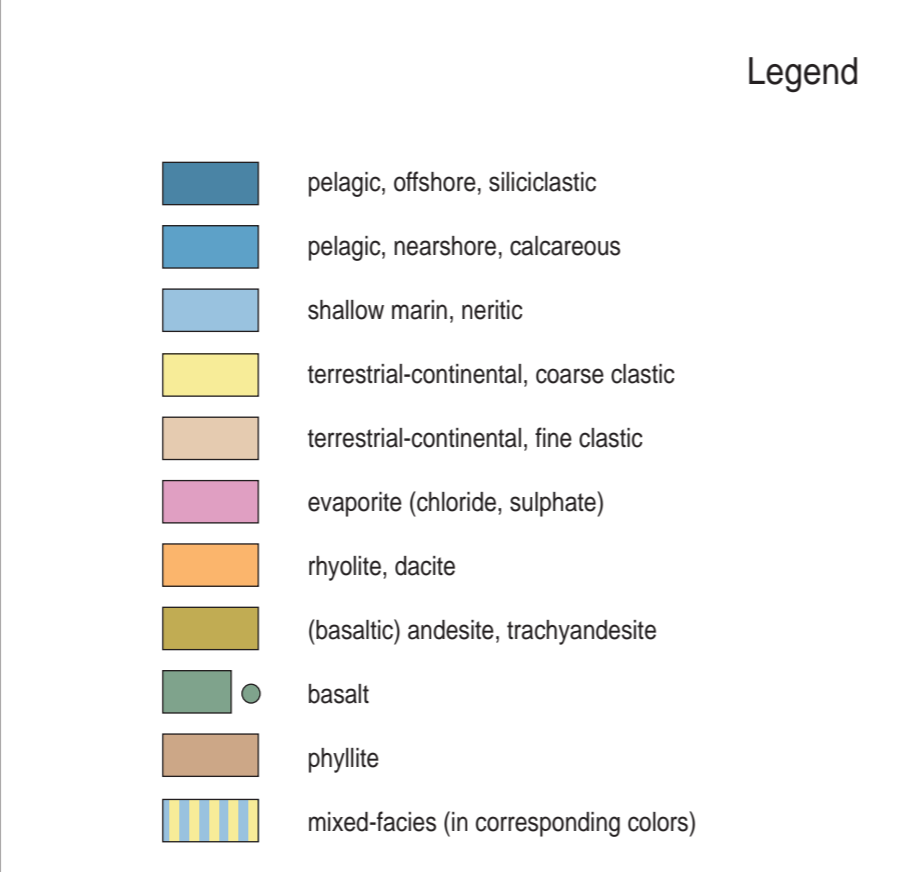
# Austrian Stratigraphic Chart 2004 - Paleozoic

(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 / LOPINGIAN				
		WUCHIAPINGIAN / Dzhulfian	255						
		CAPITANIAN	260						
		WORDIAN	265						
		ROADIAN	270						
		PERMIAN	LOWER PERMIAN / CISURALIAN			KUNGURIAN	275		
						ARTINSKIAN	280		
						SAKMARIAN	285		
						ASSELIAN	290		
		PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			GZHELIAN	295	PERMIAN	LOWER PERMIAN / CISURALIAN
KASIMOVIAN	300								
MOSKOVIAN	305								
BASHKIRIAN	310								
PERMIAN	UPPER PERMIAN / CARBONIFEROUS / PENNSYLVANIAN			SERPUKHOVIAN	315				
				VISEAN	320				
					325				
PERMIAN	LOWER PERMIAN / CISURALIAN			TOURNAISIAN	330	PERMIAN	LOWER PERMIAN / CISURALIAN		
				335					
				340					
		345							
		350							
		355							
		359.2							
		PERMIAN	UPPER PERMIAN / DEVONIAN	FAMENNIAN	360			PERMIAN	UPPER PERMIAN / DEVONIAN
				FRASNIAN	365				
				370					
375									
380									
385									
390									
395									
400									
405									
PERMIAN	LOWER PERMIAN / DEVONIAN	EMSIA	410	PERMIAN	LOWER PERMIAN / DEVONIAN				
		PRAGIAN	415						
		LOCHKOVIAN	420						
		425							
		430							
		435							
		440							
		443.7							
		445							
		PERMIAN	UPPER PERMIAN / DEVONIAN			LUDFORDIAN / GORSTIAN	450	PERMIAN	UPPER PERMIAN / DEVONIAN
HOMERIAN / SHEINWOOD	455								
TELYCHIAN	460								
AERONIAN	465								
RHUDDANIAN	470								
HIRNANTIAN	475								
480									
485									
488.3									
490									
PERMIAN	UPPER PERMIAN / DEVONIAN	PAIBIAN	495	PERMIAN	UPPER PERMIAN / DEVONIAN				
		500							
		505							
		510							
		515							
		520							
		525							
		530							
		535							
		540							
CAMBRIAN	LOWER CAMBRIAN	542	CAMBRIAN	LOWER CAMBRIAN					
		540							
		535							
		530							
		525							
		520							
		515							
		510							
		505							
		500							



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

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