

# Mineralogical study of gold from the Serpont Massif, Belgium



TOURMALINE

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Introduction

· The Serpont Massif is located in the South East of

Belgium, in the Luxembourg province.

#### **Chemical analyses**

	0r1		0r2		Or3		0r4		Or5	
	1(3)*	2²	1(3)	2	1(3)	2	1(3)	2	1(3)	2
As	-	-	-	-	-	-	-	-	-	-
Fe	0,01	Tr.	0,01	Tr.	-	-	0,01	Tr.	-	-
Cu	0,09	0,003	0,06	0,002	0,07	0,002	0,03	0,001	0,10	0,003
Ag	4,89	0,087	6,14	0,108	6,71	0,117	42,74	0,586	4,77	0,084
Au	93,59	0,909	92,63	0,890	91,76	0,880	55,02	0,413	94,03	0,912
Total	98,57		98,84		98,54		97,79		98,90	

1: Weight percentage with in bracket the number of analys 2: Number of atoms calculated on the basis of one atom per formula unit.



## Gold









Laboratory of Mineralogy, University of Liège, B-4000 Liège, Belgium.
Dejonghe L. 2000. L'or des Ardennes. Athena 164, 14, 69-71.

## · Alluvial gold is still present with an appearance of grains and specks, most often with a "modified" form, and containing sometimes quartz inclusions.

· Chemical analyses detected contents of silver below 7-weight % and traces of copper and iron.

Conclusions

- The origin of gold is related at same time to the formation of Variscan veins in a "shear zone" and its release from the Lochkovian alluvial paleoplacer.
- · Heavy minerals associated with gold are: garnet, magnetite, tourmaline, zircon, chloritoid, ilmenite, rutile and pyrite.