

Locality	Village	Number of samples	Taxon	Age (Oxfordian)		Formation	1 st Analysis	2 nd Analysis	3 rd Analysis	Standard Deviation	Average $\delta^{18}\text{O}$ (PDB)	Average T (°C)	Average $\delta^{13}\text{C}$
				Substage	Ammonite Zone								
1	West Ayton	WAY-2a	Brachiopod	Middle	Tenuiserratum	Coralline Oolite (Coral Rag Member)	-1.78	-1.87	-1.84	0.05	-1.83	18.7	3.71
		WAY-2b	Oyster				-1.75	-1.23	-1.37	0.27	-1.45	17.1	2.77
	East Ayton	EAY-1	Oyster		Densiplicatum	Coralline Oolite (Betton Farm Rag)	-2.02	-1.96	-1.94	0.04	-1.97	19.3	2.24
		EAY-5					-3.66	-3.86	-3.52	0.17	-3.68	27.1	3.38
2	Upware	UPW C.Pit2	Oyster	Middle	Tenuiserratum	Upware Limestone Member	-0.64	-0.97	-0.85	0.17	-0.82	14.4	2.69
		UPW C.Pit1					-0.79	-0.71	-0.96	0.13	-0.82	14.4	2.52
		UPW D5-a					-1.53	-1.65	-1.68	0.08	-1.62	17.8	2.15
		UPW D5-b					-1.48	-1.22	-1.22	0.15	-1.31	16.5	2.26
		UPW D6			-1.79	-1.91	-1.88	0.06	-1.86	18.8	1.98		
		UPW 001-a1			Densiplicatum	Dimmock's Cote Member	-1.62	-1.74	-1.59	0.08	-1.65	17.9	3.86
		UPW 001-a2					-1.75	-1.88	-1.87	0.07	-1.83	18.7	3.74
		UPW 001-b1					-1.94	-2.02	-1.99	0.04	-1.98	19.3	3.47
UPW 001-b2	-2.09	-1.96	-2.08	0.07			-2.04	19.6	3.51				
3	Headington	HEA LP	Oyster	Middle		Standford Formation (Coral Rag Member)	-2.08	-1.73	-1.56	0.27	-1.79	18.5	1.30
		HEA rubble 1					-1.21	-1.42	-1.24	0.11	-1.29	16.4	2.67
		HEA rubble 3					-1.49	-1.58	-1.54	0.05	-1.54	17.4	2.81
		HEA rubble 3					-1.56	-1.29	-1.38	0.14	-1.41	16.9	2.97
		HEA rubble 6					-0.27	-0.51	-0.84	0.29	-0.56	13.4	2.50
		HEA rubble 7					-0.56	-0.05	-0.14	0.27	-0.25	12.2	3.17
	Dry Sandford	DSA-1a	Oyster				-1.09	-1.17	-1.32	0.12	-1.19	15.9	2.93
		DSA-1b					-0.47	-0.68	-0.97	0.25	-0.71	14.0	2.96
	Shellingford	SHE-1a	Oyster				-1.41	-1.58	-1.66	0.13	-1.55	17.5	3.41
		SHE-1b					-1.38	-1.34	-1.52	0.09	-1.41	16.9	3.51
		Euville	EUV-C20				Brachiopod	Middle	Transversarium	Calcaires coralliens d'Euville	-4.66	-4.59	-4.16
EUV-A9-1			-2.65	-2.99	-2.92	0.18					-2.85	23.2	2.33
EUV-A9-2			-2.49	-2.56	-2.81	0.17					-2.62	22.2	2.54
Lérrouville		LER-A	Brachiopod	Middle	Transversarium	Calcaires coralliens d'Euville	-2.61	-2.82	-2.77	0.11	-2.73	22.6	2.30
		LER-C					Calcaires à coraux de Foug	-2.51	-2.69	-2.72	0.11	-2.64	22.2
Saint-Mihiel		SMI-a	Brachiopod	Middle	Transversarium	Oolithe de Saint-Mihiel	-4.31	-4.22	-4.69	0.25	-4.41	30.6	0.92
		SMI-b					-4.28	-4.58	-4.14	0.22	-4.33	30.2	0.58
		SMI-c					-3.02	-3.24	-3.13	0.11	-3.13	24.5	0.67
		SMI-d					-3.02	-3.12	-3.14	0.06	-3.09	24.3	0.63
		SMI-e					-3.14	-3.12	-3.21	0.05	-3.16	24.6	0.71
		SMI-f					-3.26	-3.09	-3.31	0.12	-3.22	24.9	0.62
		PAG-Disc4-b		Upper	Bimmamatum	Calcaires à polytiers de Pagny	-1.01	-1.09	-1.14	0.07	-1.08	15.5	2.28
		PAG-Disc4-c					-1.29	-1.24	-0.89	0.22	-1.14	15.8	2.20
		PAG-Disc4-e					-1.97	-2.06	-2.26	0.15	-2.10	19.8	2.18
	PAG-B1-4	-2.06					-1.97	-1.94	0.06	-1.99	19.4	1.99	
	PAG-B1-a	-1.89					-1.93	-2.04	0.08	-1.95	19.2	1.50	

4	Pagny-sur-Meuse	PAG-Ea3	Brachiopod	Upper	Bifurcatus	Calcaires à polypiers de Pagny	-1.97	-2.14		0.12	-2.06	19.7	2.72
		PAG-B1-3					-1.61	-1.27	-1.48	0.17	-1.45	17.0	2.87
		PAG-Ea3					-1.39	-1.59	-1.52	0.10	-1.50	17.2	2.49
		PAG-Ea4		Middle	Transversarium	Calcaires coralliens d'Euville	-1.36	-1.42	-1.58	0.11	-1.45	17.1	2.91
		PAG-E2-1					-2.83	-2.54	-2.49	0.18	-2.62	22.2	2.32
		PAG-E2-2					-3.12	-3.05	-3.04	0.04	-3.07	24.2	2.25
		PAG-E1					-2.65	-2.58		0.05	-2.62	22.1	2.63
		PAG-E12					-2.49	-2.61	-2.91	0.22	-2.67	22.4	2.22
		PAG-W2					-3.21	-3.59	-3.28	0.20	-3.36	25.5	4.05
	PAG-W3	-2.97	-3.06	-3.18	0.11	-3.07	24.2	3.05					
	Saint-Germain-sur-Meuse	SGE-5a-1	Brachiopod	Middle	Transversarium	Calcaires coralliens d'Euville	-3.09	-3.45	-3.55	0.24	-3.36	25.5	2.49
		SGE-5a-2					-3.01	-2.71	-2.82	0.15	-2.85	23.2	2.55
		SGE-3b-1					-3.04	-3.41	-3.35	0.20	-3.27	25.1	2.44
		SGE-3b-2					-2.98	-3.21	-3.36	0.19	-3.18	24.7	2.83
		SGE-dsup-1					-2.59	-2.98	-2.75	0.20	-2.77	22.8	3.00
		SGE-d3-1-1					-3.17	-2.87		0.21	-3.02	24.0	2.76
		SGE-d3-1-2					-2.81	-2.54	-2.71	0.14	-2.69	22.5	2.76
	Foug	FOU-3	Brachiopod	Middle	Transversarium	Calcaires à coraux de Foug	-1.89	-2.04	-1.99	0.08	-1.97	19.3	3.25
FOU-2		-2.12					-2.05	-2.14	0.05	-2.10	19.8	3.13	
FOU-1		-1.83					-1.68	-1.71	0.08	-1.74	18.3	3.08	

sample of too small size for triplicate analyses

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				Substage	Ammonite Zone								
5	Merry-sur-Yonne	MSY-1b-2	Brachiopod	Upper	Bimmamatum	Complexe récifal supérieur	-4.16	-4.42	-4.79	0.32	-4.46	30.9	1.48
		MSY-1b-1					-4.29	-4.98	-4.59	0.35	-4.62	31.7	1.28
	Mailly-le-Château	MLC-1					-2.93	-3.08		0.11	-3.01	24.0	2.78
		MLC-2					-3.04	-3.01	-3.15	0.07	-3.07	24.2	3.02
	Druyes-les-Belles-Fontaines	DBF-g2					-3.99	-4.05	-4.26	0.14	-4.10	29.1	0.81
		DBF-g1		-3.89	-3.93	-4.13	0.13	-3.98	28.5	0.85			
		DBF-a2		-2.61	-2.77		0.11	-2.69	22.4	1.00			
	Châtel-Censoir	DBF-a1		-2.74	-2.79	-2.89	0.08	-2.81	23.0	0.78			
		CCE-f		-3.87	-3.42	-3.77	0.24	-3.69	27.1	1.89			
		CCE-a		-1.93	-1.82	-1.80	0.07	-1.85	18.8	4.19			
		BLP-24-1	Brachiopod				-1.42	-1.48	-1.68	0.14	-1.53	17.4	3.21
		BLP-24-2					-1.65	-1.52	-1.32	0.17	-1.50	17.3	3.13
		BLP-22					-3.14	-3.18		0.03	-3.16	24.6	2.57
		BLP-20b-1					-3.24	-3.29	-3.45	0.11	-3.33	25.4	2.68
		BLP-20b-2					-3.43	-3.28	-3.22	0.11	-3.31	25.3	2.73
		BLP-20-1					-2.59	-2.53	-2.58	0.03	-2.57	21.9	3.20

6	Bonnevaux-le-Prieuré	BLP-20-2	Oyster	Middle	Transversarium	Oolithe corallienne de Pagnoz	-2.67	-2.81	-3.02	0.18	-2.83	23.1	3.10	
		BLP-20-Apl					-3.74	-3.51	-3.38	0.18	-3.54	26.4	2.29	
		BLP-18-3a					-1.71	-1.75	-1.85	0.07	-1.77	18.4	3.27	
		BLP-18-3b					-2.01	-1.71	-1.77	0.16	-1.83	18.6	3.04	
		BLP-18-2a					-1.79	-1.81	-1.96	0.09	-1.85	18.7	3.22	
		BLP-18-2b					-2.03	-2.31	-2.24	0.15	-2.19	20.2	3.12	
		BLP-18-1					-3.51	-3.62	-4.01	0.26	-3.71	27.2	2.72	
		BLP-15F-1	Brachiopod				-2.01	-2.26	-2.21	0.13	-2.16	20.1	3.58	
		BLP-15F-2a					-2.18	-2.34	-2.27	0.08	-2.26	20.5	2.99	
		BLP-15F-2b					-2.45	-2.54	-2.38	0.08	-2.46	21.4	2.92	
		BLP-15F-3					-1.45	-1.72	-1.11	0.31	-1.43	17.0	5.36	
		BLP-15D					-1.97	-2.47	-2.25	0.25	-2.23	20.4	3.12	
		BLP-13A					Calcaire siliceux de Dôle	-1.93	-1.69	-1.59	0.17	-1.74	18.3	3.58
		BLP-7						-1.98	-1.96	-1.93	0.03	-1.96	19.2	3.01
7	Soyhières	SOY-a	Brachiopod	Upper	Bimmamatum	Natica Member	-2.13	-2.25	-2.39	0.13	-2.26	20.6	2.02	
		SOY-b					-1.99	-2.02	-2.11	0.06	-2.04	19.6	2.12	
		SOY-c					-1.89	-1.97	-1.96	0.04	-1.94	19.1	2.42	
		SOY-d					-1.99	-2.04	-2.21	0.12	-2.08	19.8	2.17	
	Hautes-Roches	HRO-a	Brachiopod	Upper	Bifurcatus	Vellerat Formation (Günsberg Member)	-1.79	-2.23	-1.92	0.23	-1.98	19.3	2.02	
		HRO-b					-2.59	-2.31	-2.01	0.29	-2.30	21.7	2.43	
	Corcelles	COR-4	Brachiopod	Middle	Schilli	Vellerat Formation (Günsberg Member)	-1.81	-1.82	-1.97	0.09	-1.87	18.3	2.65	
		COR-6					-2.01	-1.93	-1.94	0.04	-1.95	19.2	2.71	
	Saint-Ursanne	SUR-1	Brachiopod	Middle	Transversarium	Saint-Ursanne Formation	-3.33	-3.24	-3.26	0.05	-3.28	25.2	3.05	
		SUR-2					-3.01	-2.97	-3.28	0.17	-3.09	24.3	3.38	
Glovelier	GLO-9	Brachiopod	Middle	Transversarium	Bärschwil Formation (Liesberg Member)	-2.04	-1.58	-1.61	0.26	-1.74	18.3	2.69		
	GLO-21					-1.99	-2.04	-2.15	0.08	-2.06	19.8	2.58		
8	Cap Ghir	CGH-Q	Brachiopod	Upper ? / Lower Kimmeridgian ?	?	Lalla Oujja Formation	-3.08	-3.12	-3.11	0.02	-3.10	24.3	2.98	
		CGH-R					-3.23	-3.18	-3.25	0.04	-3.22	24.9	3.13	
		CGH-S					-3.06	-3.01	-3.45	0.24	-3.17	24.7	3.24	

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