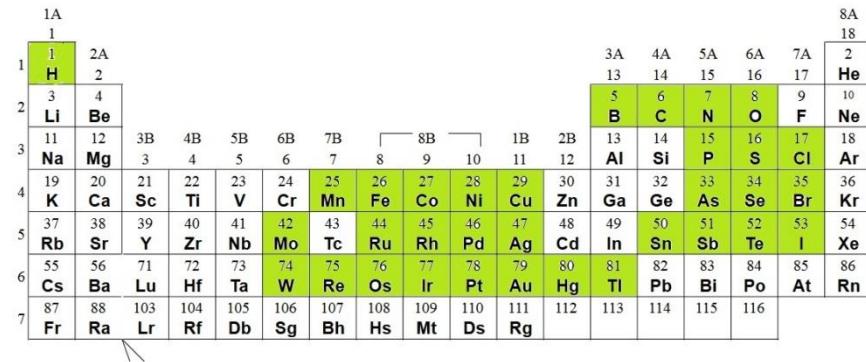
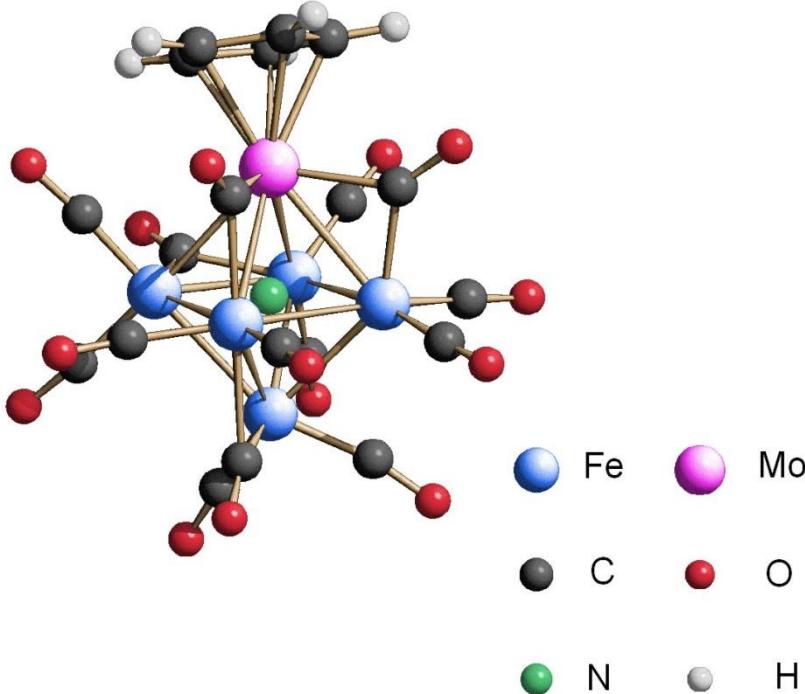


COMPOSTI MOLECOLARI MULTIMETALLICI (MMC)

Prof. DELLA PERGOLA

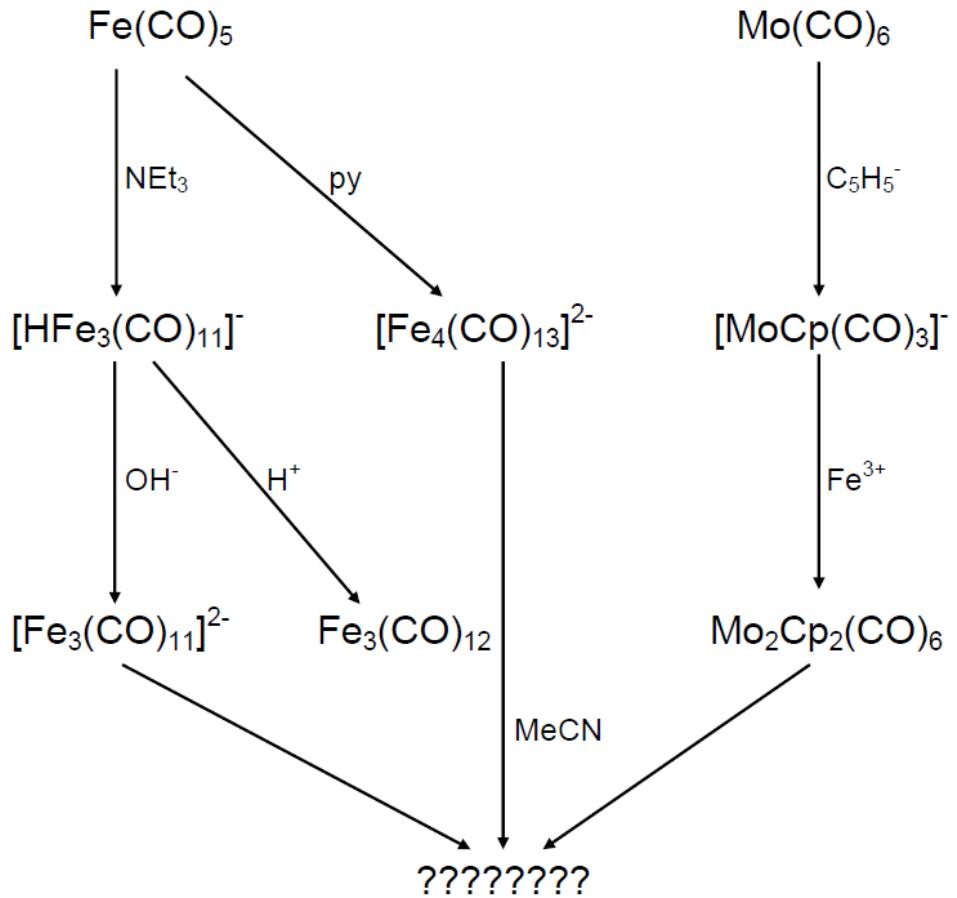
roberto.dellapercola@unimib.it



1A															8A					
1	2	2A																18		
3	4	Li	Be	3B		4B	5B	6B	7B	8B		1B		2B	13	14	15	16	7A	2
11	12	Na	Mg	3	4	5	6	7	8	9	10	11	12	13	14	15	16	9	10	
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	Ar	He	
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	Kr	Ne	
55	56	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	Xe	At	
87	88	103	104	105	106	107	108	109	110	111	112	113	114	115	116			Rn		
Fr	Ra	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg										

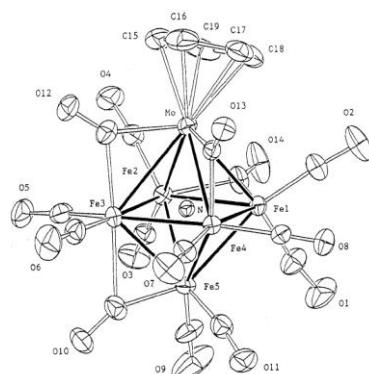


SINTESI DI MCC



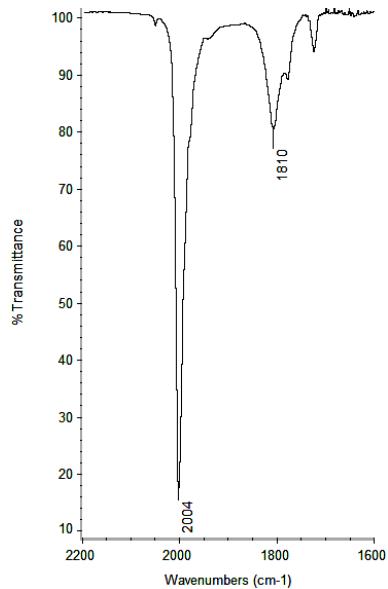
CARATTERIZZAZIONE DI MCC

- STRUTTURA ALLO STATO SOLIDO MEDIANTE DIFFRAZIONE



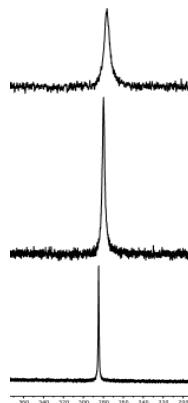
SPETTROMETRIA DI MASSA

-

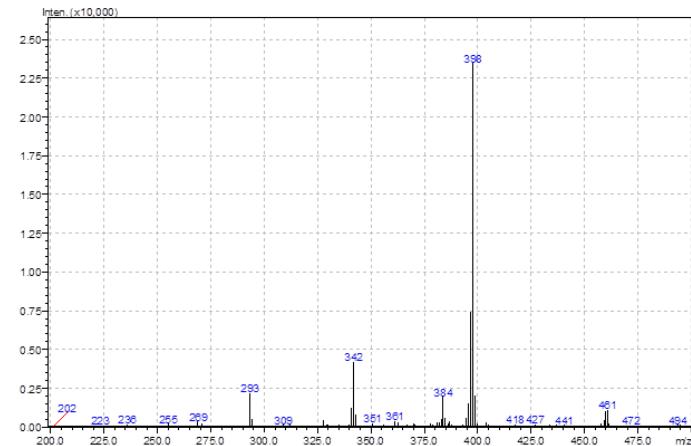


SPETTROSCOPIA IR

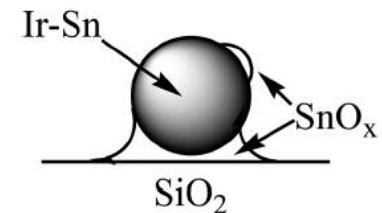
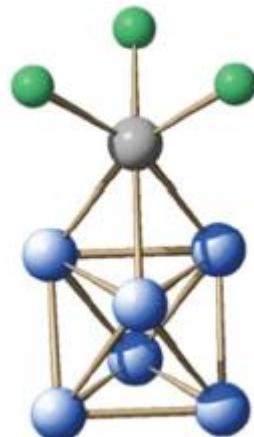
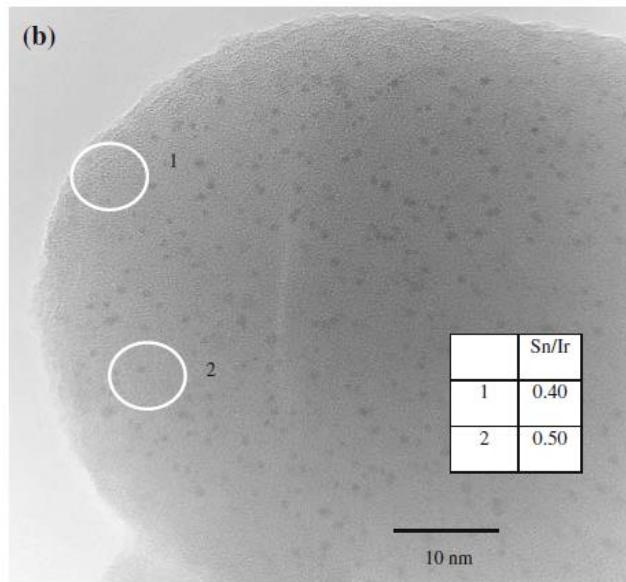
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- SPETTROSCOPIA NMR MULTINUCLEARE



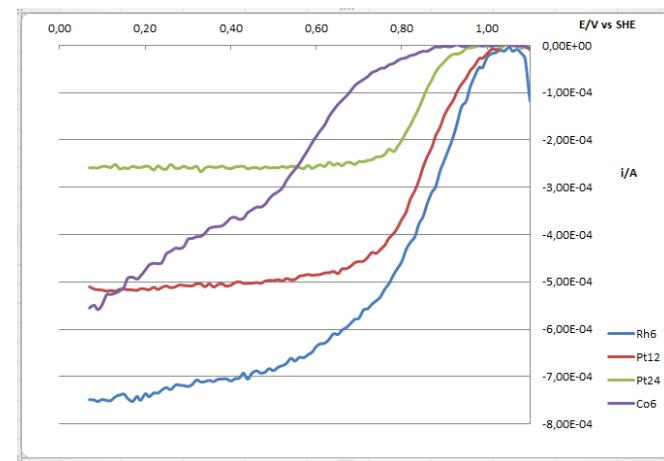
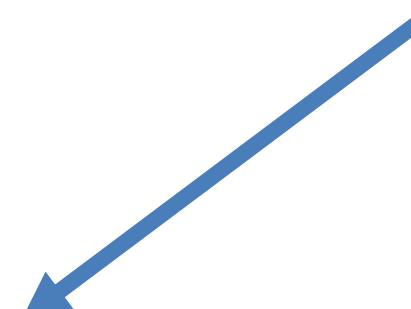
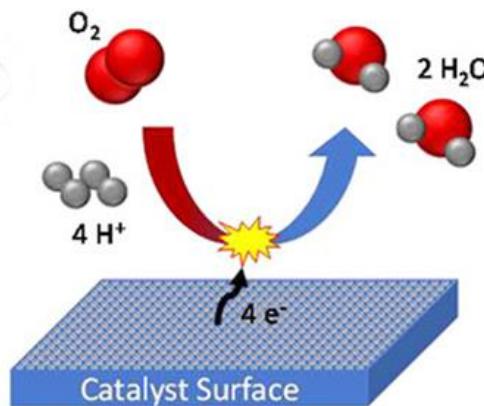
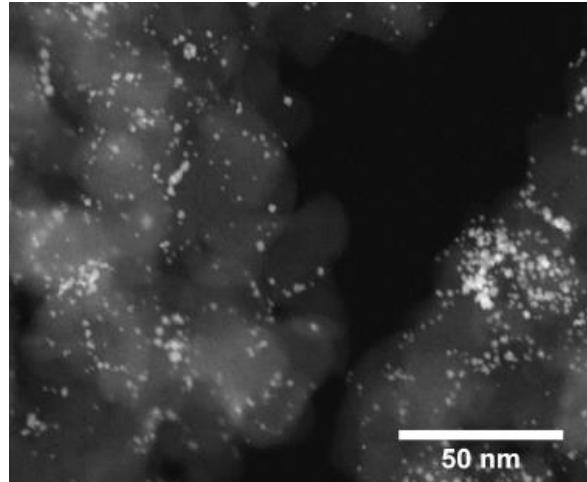
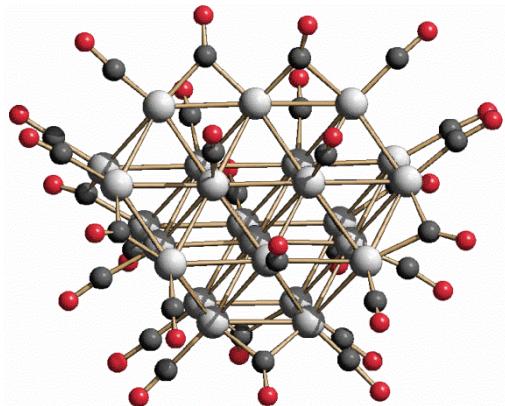
APPLICAZIONI DI MCC: 1 SINGLE SITE CATALYSIS



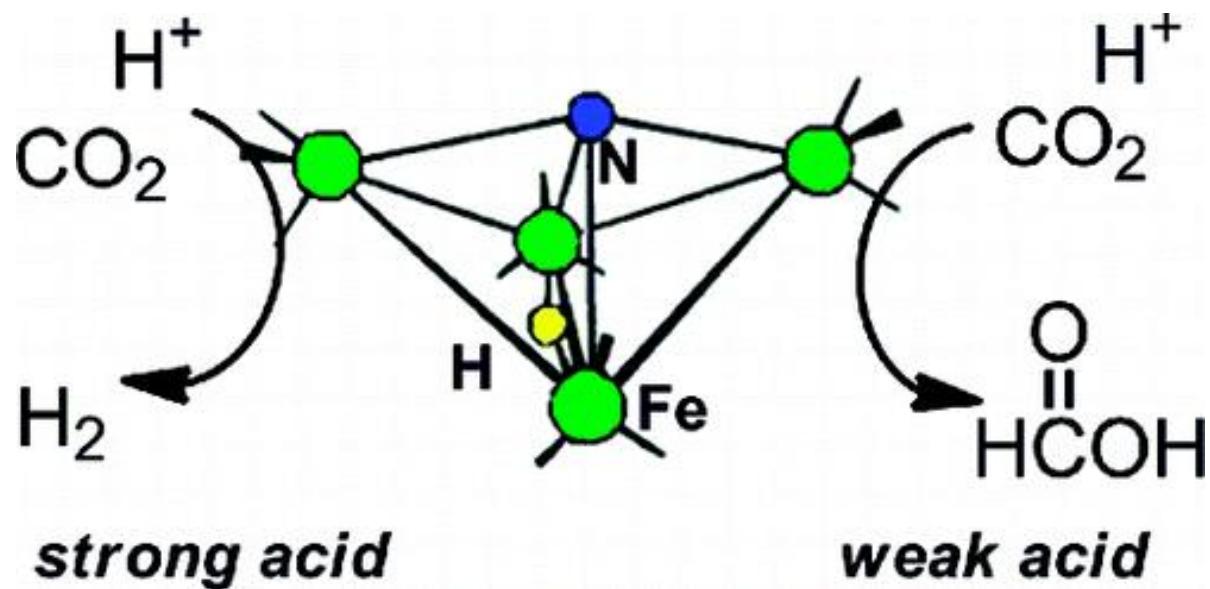
$[\text{Ir}_6(\text{CO})_{15}\text{SnCl}_3]^-$ supportato su SiO_2 viene privato dei leganti. Si formano particelle bimetalliche che catalizzano la deidrogenazione del propene:



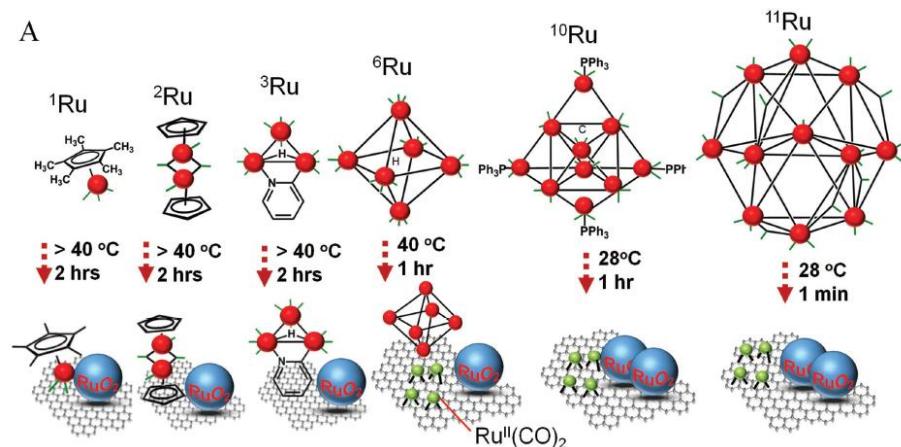
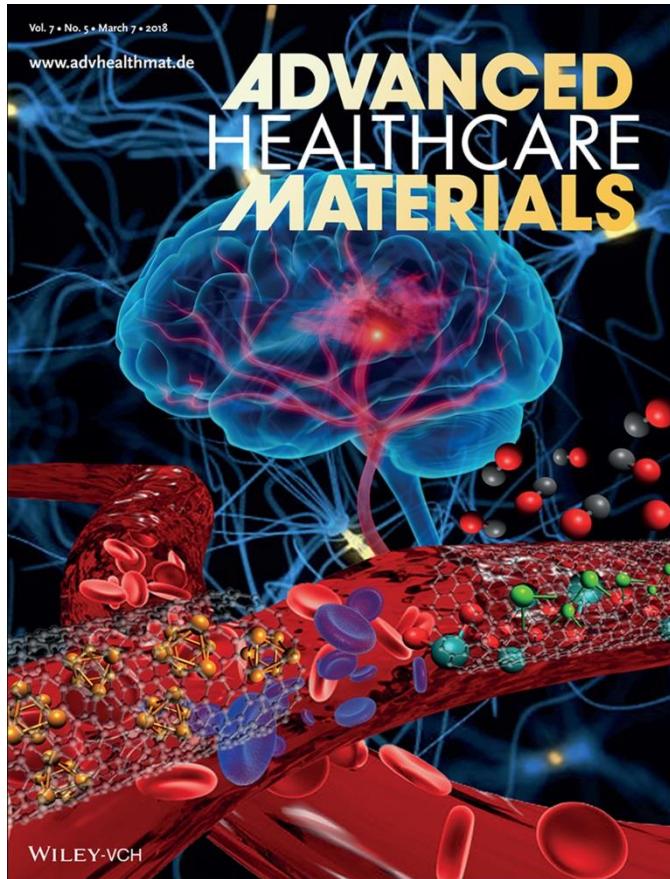
APPLICAZIONI DI MCC: 2 ELETTROCATALISI



APPLICAZIONI DI MCC: 3 ELETTROCATALISI MOLECOLARE



APPLICAZIONI DI MCC: 4 CO RELEASE FOR STROKE REMEDIATION

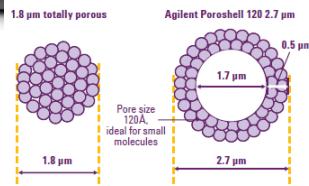


ANALISI CROMATOGRAFICHE

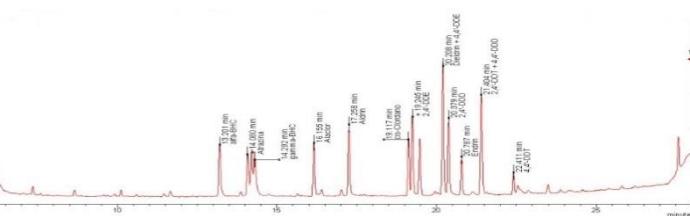
GC e HPLC per la separazione di sostanze in miscele complesse



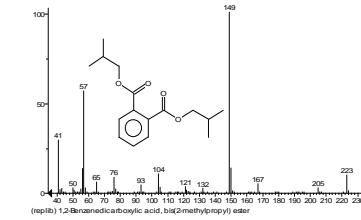
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+



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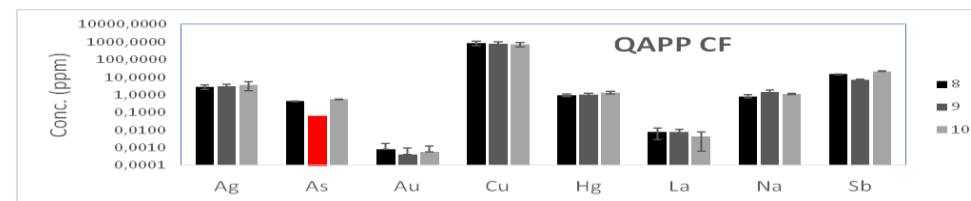
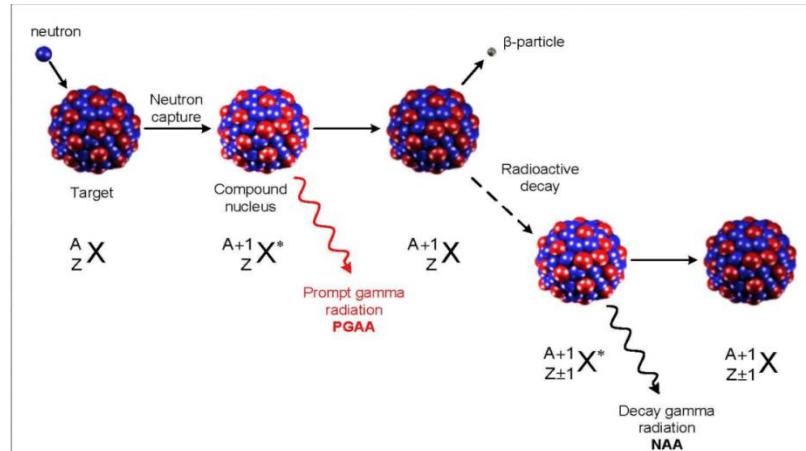
FID, DAD e FLD per la quantificazione

MS per il riconoscimento qualitativo degli analiti

PROGETTI IN CORSO

- Analisi ambientali: emissioni e sottoprodoti da processi industriali
- Analisi di lipidi in scarti alimentari
- Analisi di beni culturali: lipidi in reperti archeologici per ricostruzioni storiche: il miele nel neolitico, le ossa dei romani, il makeup degli egizi.
- Analisi IR e GC-MS di microplastiche

ANALISI ELEMENTARI DI REPERTI ARCHEOLOGICI CON METODI RADIOCHIMICI



In collaborazione con il Dip. di Fisica di Unimib (dr. Clemenza).
Il campione viene irraggiato (tramite reattore nucleare LENAdi Unipv) con neutroni.
Vengono emessi raggi γ , che ne indicano la composizione