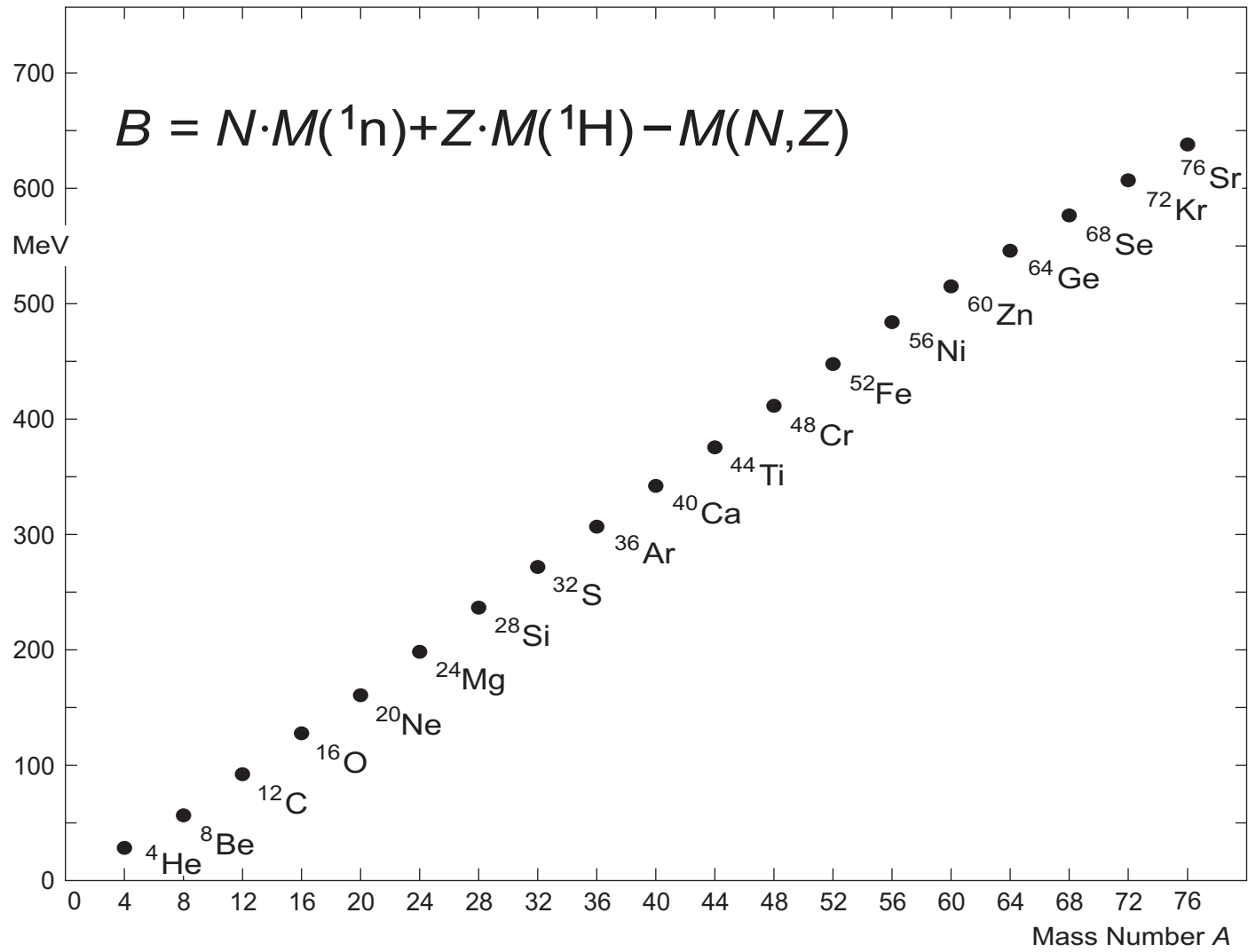


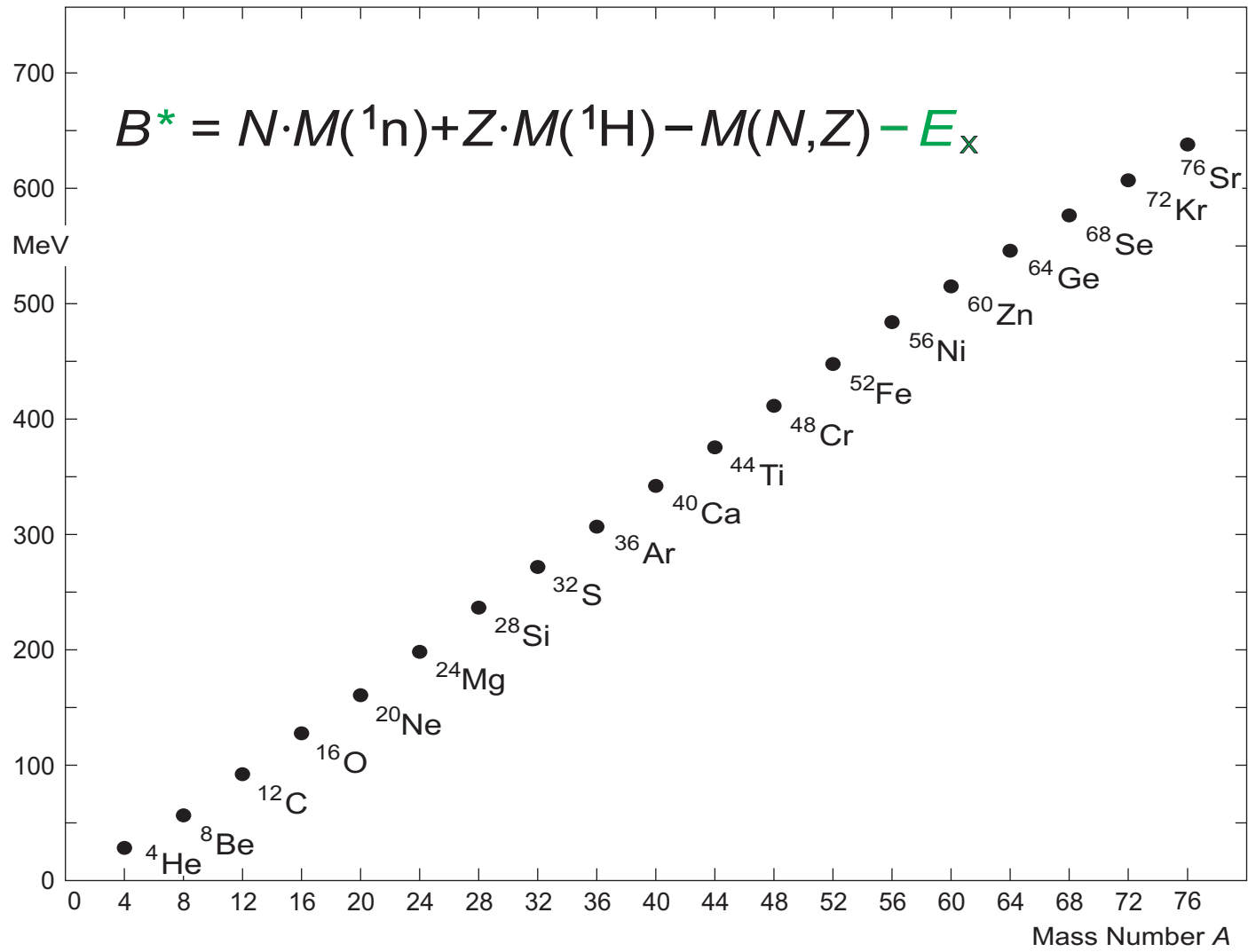
Binding-Energy Systematics of 0^+ , 2^+ , 3^- , and 4^- , $T=0$ States of Even-Even Self- Conjugate Nuclides from ^{16}O to ^{40}Ca

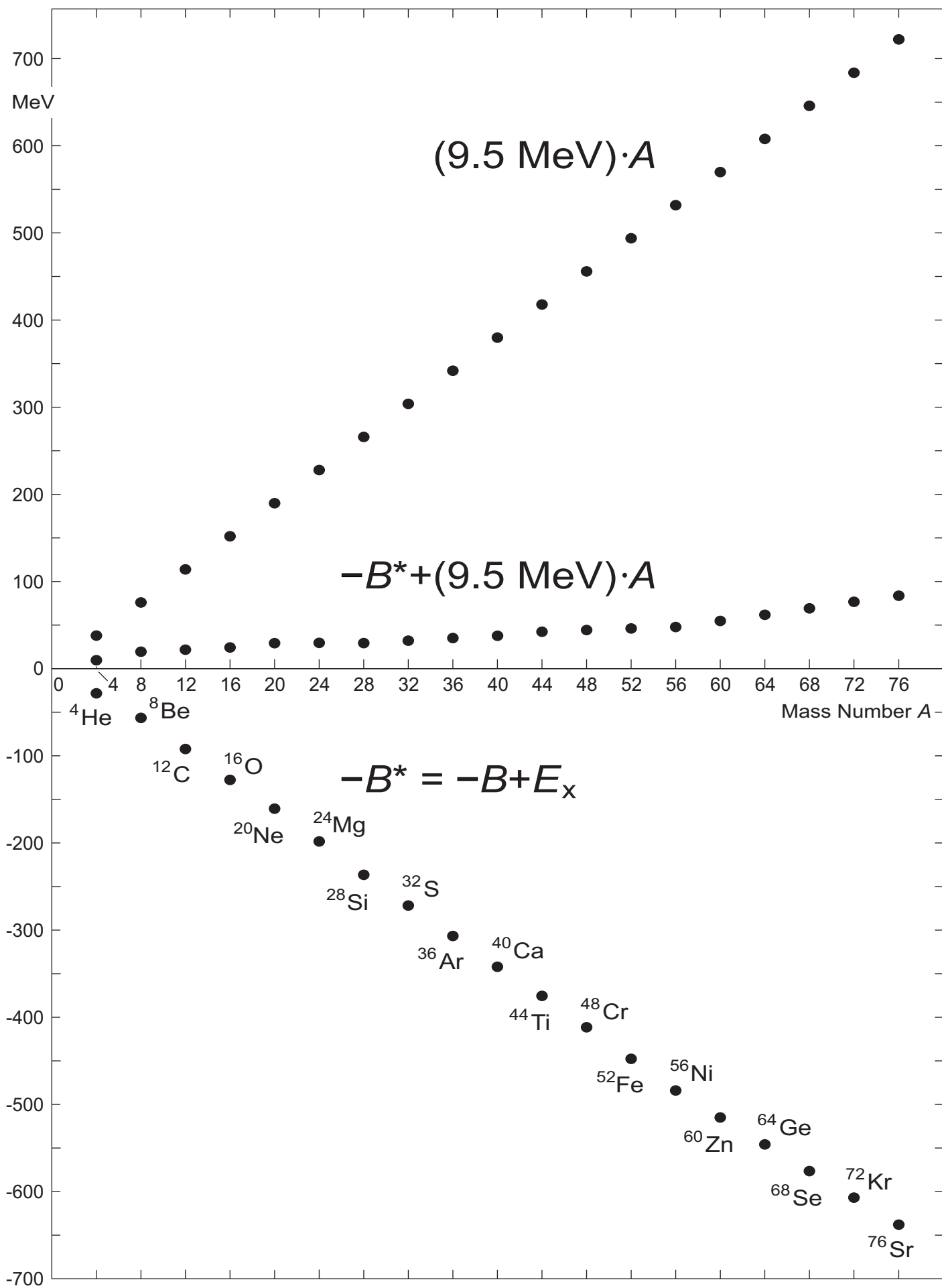
F. Everling

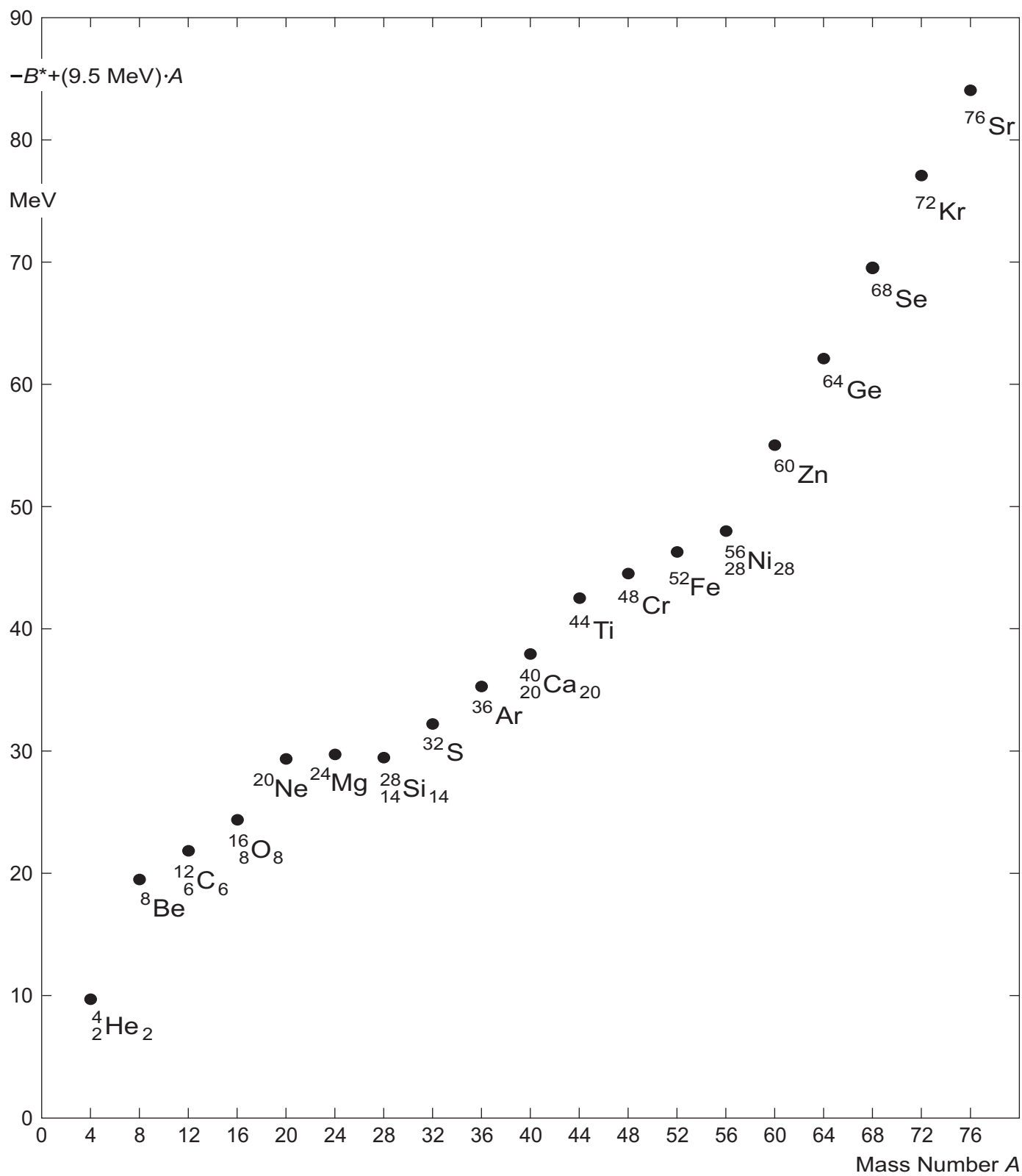
NC State University, Raleigh, and TUNL, Durham, NC, USA

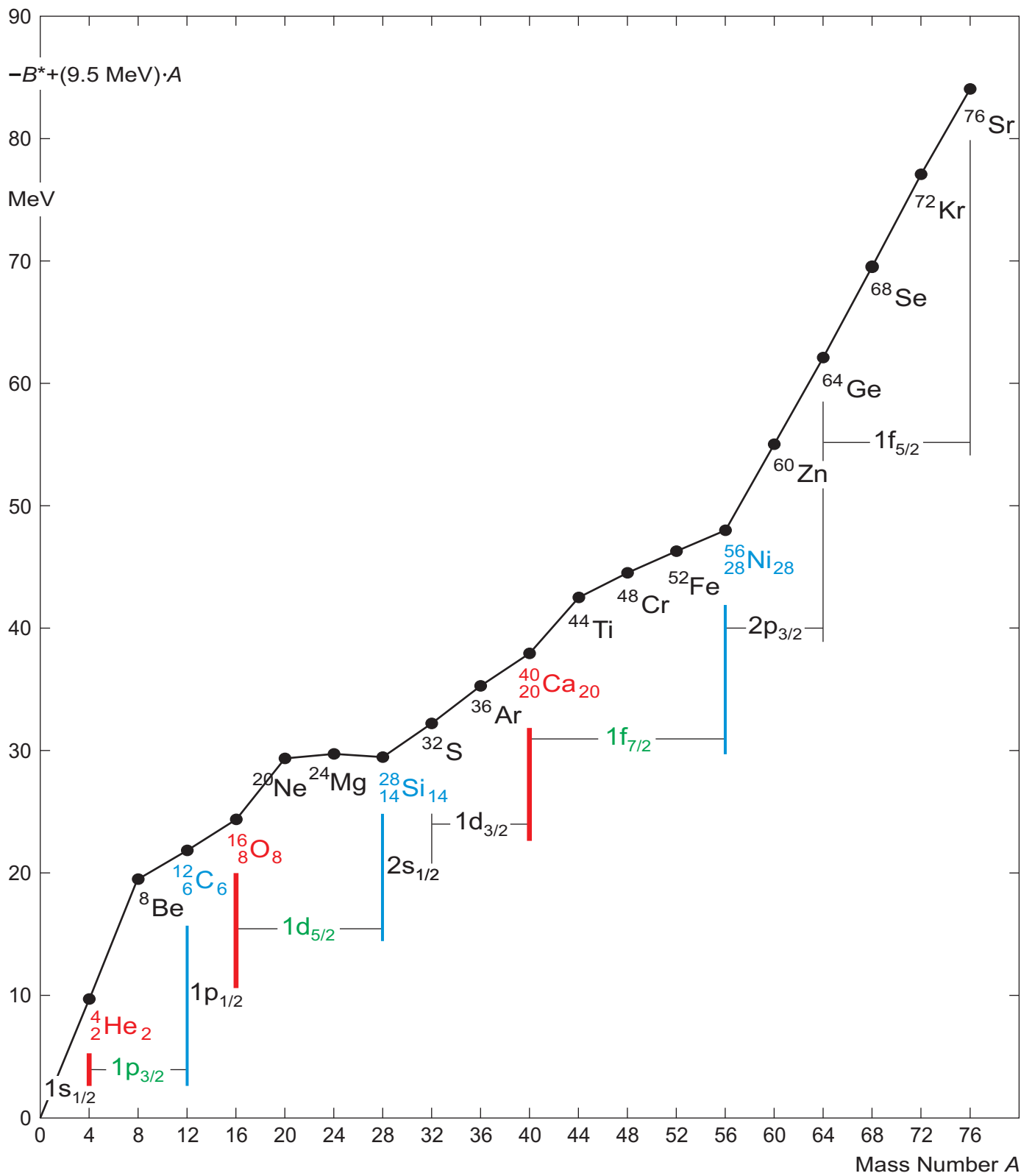
(earlier affiliation, now Hamburg)

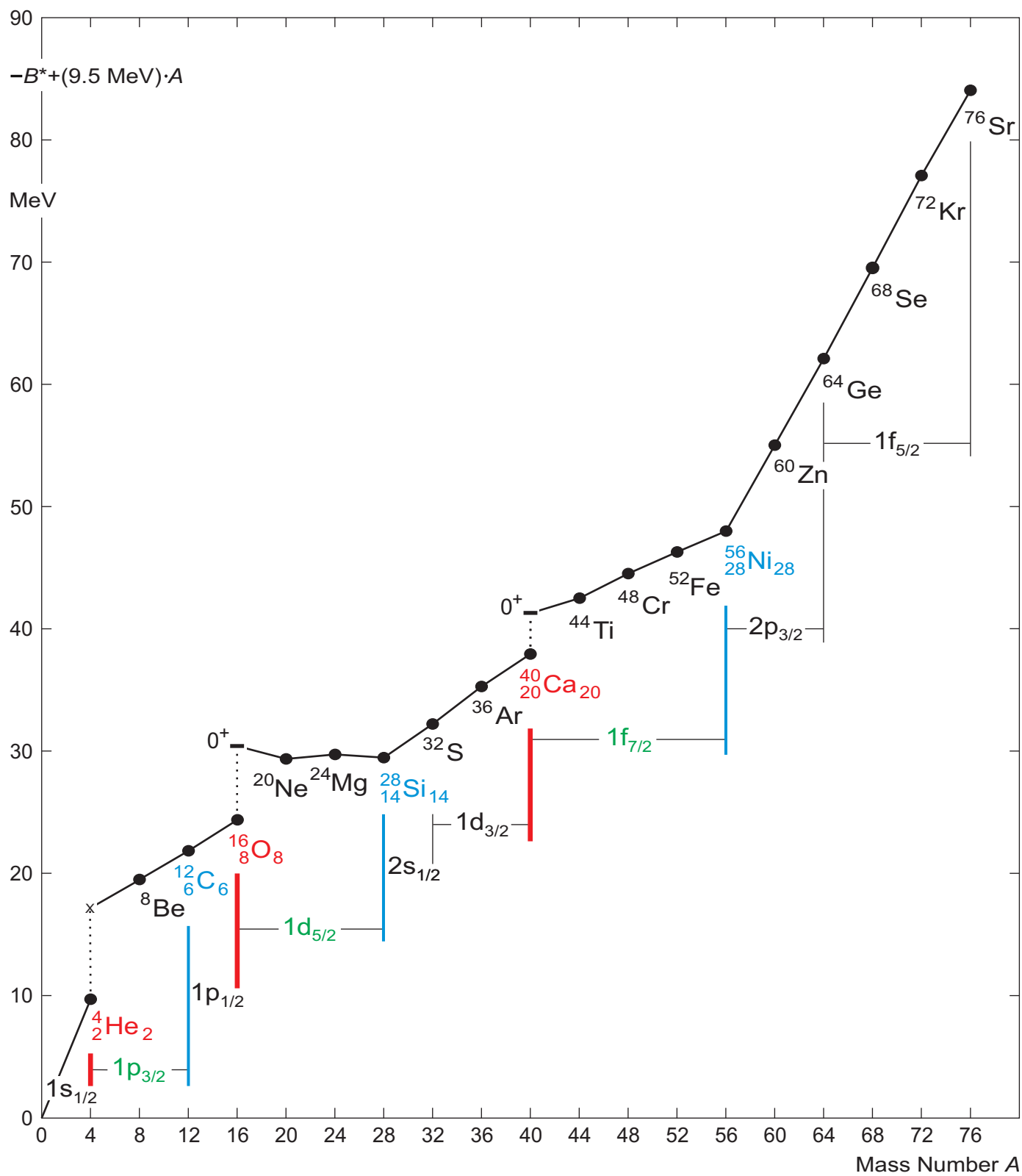












Magic Numbers (bold) for N and Z

Oscillator Shell Closures	N or $Z =$	2	8	20	(40)	70	112	
Subshells		4	6	8	10	12	14	
Sum, Magic Numbers bold	N or $Z =$	6	(14)	28	50	82	126	
Mass Numbers $A = N + Z$	{	$A =$	4	16	40	(80)		
		$A =$		(28)	56	100	164	252
Doubly Magic Nuclides ($N = Z$)		${}^4\text{He}$,	${}^{16}\text{O}$,	$({}^{28}\text{Si})$,	${}^{40}\text{Ca}$,	${}^{56}\text{Ni}$,	$({}^{80}\text{Zr})$,	${}^{100}\text{Sn}$, ...

