

This is "Appendix I: Experimentally Measured Masses of Selected Isotopes", appendix 9 from the book <u>Principles of General Chemistry (index.html)</u> (v. 1.0M).

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## **Chapter 33**

## Appendix I: Experimentally Measured Masses of Selected Isotopes

Isotope	Mass (amu)	Isotope	Mass (amu)	Isotope	Mass (amu)
<sup>1</sup> H	1.007825	<sup>14</sup> N	14.003074	<sup>208</sup> Po	207.981246
<sup>2</sup> H	2.014102	<sup>16</sup> O	15.994915	<sup>210</sup> Po	209.982874
<sup>3</sup> H	3.016049	<sup>52</sup> Cr	51.940508	<sup>222</sup> Rn	222.017578
<sup>3</sup> He	3.016029	<sup>56</sup> Fe	55.934938	<sup>226</sup> Ra	226.025410
<sup>4</sup> He	4.002603	<sup>59</sup> Co	58.933195	<sup>230</sup> Th	230.033134
<sup>6</sup> Li	6.015123	<sup>58</sup> Ni	57.935343	<sup>234</sup> Th	234.043601
<sup>7</sup> Li	7.016005	<sup>60</sup> Ni	59.930786	<sup>234</sup> Pa	234.043308
<sup>9</sup> Be	9.012182	<sup>90</sup> Rb	89.914802	<sup>233</sup> U	233.039635
<sup>10</sup> B	10.012937	<sup>144</sup> Cs	143.932077	<sup>234</sup> U	234.040952
<sup>11</sup> B	11.009305	<sup>206</sup> Pb	205.974465	<sup>235</sup> U	235.043930
<sup>12</sup> C	12	<sup>207</sup> Pb	206.975897	<sup>238</sup> U	238.050788
<sup>13</sup> C	13.003355	<sup>208</sup> Pb	207.976652	<sup>239</sup> Pu	239.052163
<sup>14</sup> C	14.003242				

Data source: G. Audi, A. H. Wapstra, and C. Thibault, *The AME2003 atomic mass evaluation*.

This table is provided as a reference.

Isotope	Mass (amu)	Isotope	Mass (amu)
<sup>8</sup> B	8.024607	<sup>209</sup> Fr	208.99592
<sup>40</sup> K	39.963998	<sup>210</sup> Po	209.982874
<sup>52</sup> Cr	51.940508	<sup>212</sup> At	211.990745
<sup>58</sup> Ni	57.935343	<sup>214</sup> Pb	213.999797

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Isotope	Mass (amu)	Isotope	Mass (amu)
<sup>59</sup> Co	58.933195	<sup>214</sup> Bi	213.998712
<sup>60</sup> Co	59.933817	<sup>216</sup> Fr	216.003198
<sup>60</sup> Ni	59.930786	<sup>199</sup> Pb	198.972917
<sup>90</sup> Sr	89.907738	<sup>222</sup> Rn	222.017578
<sup>92</sup> Kr	91.926156	<sup>226</sup> Ra	226.025410
<sup>141</sup> Ba	140.914411	<sup>227</sup> Ra	227.029178
<sup>143</sup> Xe	142.935110	<sup>228</sup> Ac	228.031021
<sup>167</sup> Os	166.971550	<sup>230</sup> Th	230.033134
<sup>171</sup> Pt	170.981240	<sup>233</sup> U	233.039635
<sup>194</sup> Hg	193.965439	<sup>234</sup> Th	234.043601
<sup>194</sup> Tl	193.971200	<sup>234</sup> Pa	234.043308
<sup>199</sup> Pb	198.972917	<sup>233</sup> U	233.039635
<sup>199</sup> Bi	198.977672	<sup>234</sup> U	234.040952
<sup>206</sup> Pb	205.974465	<sup>235</sup> U	235.043930
<sup>207</sup> Pb	206.975897	<sup>238</sup> Pa	238.054500
<sup>208</sup> Pb	207.976652	<sup>238</sup> U	238.050788
<sup>208</sup> Bi	207.979742	<sup>239</sup> Pu	239.052163
<sup>208</sup> Po	207.981246	<sup>245</sup> Pu	245.067747