Answer on Question #55172 - Chemistry - General chemistry

Question:

From the groundstate electron configuration of B and C predict which molecule should have the greater dissociation energy.

Answer:

MO of B: $1\sigma^2\ 2\sigma^{*2}\ 1\pi^2$

MO of C: $1\sigma^2\ 2\sigma^{*2}\ 1\pi^4$

The bond order of C twice more than bond order of B. That's why C_2 should have the greater dissociation energy.