Bass absorbers, either Helmholtz or membrane devices, are commonly used in small rooms to reduce the
effects of standing wave modes. Previously, it has been shown that activated carbon can be used to change
the compliance of loudspeaker enclosures. It has also been shown that activated carbon displays excess
absorption at low frequencies. It has been suggested that the change in compliance and absorption is due
to adsorption and desorption of air molecules on the surface of the carbon, caused by the compressions and
rarefactions of sound waves. This paper investigates the extent of these effects to and their significance for
resonant absorbers. The results show that activated carbon can lower the resonant frequency of a Helmholtz
absorber, and also increases the quality factor of the resonance. The paper will discuss what the results mean
in terms of the physical interaction between activated carbon and sound, as well as the practical application
of the material to bass absorbers.