CHAPTER V
CONCLUSIONS

Silk sericin could be coated onto nylon and PET fibers used in indoor air filters to reduce the amount of toxic free radicals, fungi, and Micrococcus type of bacterias. By using a simple coating technique, the sericin waste can increase the value of the air filter.

Among the different species of waste cocoon, Polyvoltine waste cocoon Nang Noi, Polyvoltine x Bivoltine waste cocoon Dok Bua, and Bivoltine waste cocoon, Jul. Jul had the highest antioxidant capacity inhibition of $OH^{\bullet}$, while Dok Bua was second and Nang Noi had the lowest inhibition activity. For antifungal activity, Dok Bua and Jul had comparable efficiency and Nang Noi had the lowest capacity. For the inhibition activity in Micrococcus type of bacteria, Dok Bua was found to have the highest capacity, while Nang Noi was second and Jul had the lowest capacity. The coated surface of sericin on Nylon fiber and PET fiber was smooth along with the fiber. Thus, sericin from Dok Bua had the best properties for coating on the air filter.