

Tree bark is considered as an effective passive sampler for estimating the atmospheric status of pollutants. In this study, we conducted a national scale tree bark sampling campaign across China. Concentration profiles revealed that Eastern China, especially the Jing-Jin-Ji region (including Hebei Province, Beijing and Tianjin) was a hot spot of bark DDT pollution. The enantioselective accumulation of *o,p'*-DDT was observed in most of the samples and 68% of them showed a preferential depletion of (+)-*o,p'*-DDT. These results suggest that DDTs in rural bark are likely from combined sources including historical technical DDTs and fresh dicofol usage. The tree bulk DDT levels were found to correlate with soil DDT concentrations, socioeconomy and PM_{2.5} of the sampling sites. It thus becomes evident that the reemission from soils and subsequent atmospheric deposition were the major pathways leading to the accumulation of DDTs in bark. Based on a previously established bark-air partitioning model, the concentrations of DDTs in the air were estimated from measured concentrations in tree bark, and the results were comparable to those obtained by the use of passive sampling with polyurethane foam (PUF) disks. Our results demonstrate the feasibility of delineating the spatial variations in atmospheric concentration and tracing sources of DDTs by integrating the use of tree bark with enantiomeric analysis