

**STICKY-SHED SYNDROME IN AUDIO MAGNETIC TAPES:
POSSIBLE CAUSES AND ANALYSIS**

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Sticky-shed syndrome is a condition caused by degradation of audio magnetic tape that results in the deposition of a gummy residue on the tape heads and guides during playback. It causes severe contamination of tape decks, which need to be cleaned before the tape can be played further. Thus, tapes with sticky-shed should be treated before playing to avoid possible damage to the tape. The Library of Congress, Washington, D.C., is conducting research into the causes of sticky-shed and developing nondestructive test methods for identifying which tapes have sticky-shed. This presentation will discuss the composition of audio magnetic tapes, changes in molecular weight and water content for tapes with sticky-shed and degradation reactions related to sticky-shed. In addition, a non-destructive test method involving FTIR is discussed. FTIR results from tapes with sticky-shed are compared to results without sticky-shed (after treatment by baking) and differences in the spectra are discussed.

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