This dataset provides the data for Reference

[1] Alfonso Caiazzo, Florian Kraxberger, Christian Adams, Andreas Wurzinger, Giuseppe Petrone, Stefan Schoder, Sergio De Rosa and Manfred Kaltenbacher: FOAM 02: A dataset of impedance tube measurements with different materials and diameter variations. (manuscript in preparation)

It consists of two CSV files, each containing measurements related to sound absorption coefficient:

i. alphas.csv: sound absorption coefficient in the frequency domain (comma-separated), 864 rows according to 864 measurements
ii. targets.csv: one hot encoded vectors, i.e. binary vectors, 864 rows according to 864 measurements

The frequency domain under examination is ranging from 150 Hz to 1600 Hz with resolution of 2 Hz. Note that these limits are not strictly equal to the frequency limits of the impedance tube, see [1]. The one hot encoded vectors are set up as follows:

Specimen thickness in mm				Specimen diameter in mm			Specimen material		Specimen mounting rotational angle in deg				...
30	40	50	60	98	100	102	Pinta Plano Polar®	Baso-tect®	0	90	180	270	...

...	Specimen number			Repetition number		
...	1	2	3	1	2	3

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