

INSTRUMENTAL EQUIPMENT OF THE LABORATORY
BY THE END OF 1972

1. Instrumentation for speech analysis

- 2 Sona-Graphs, Kay-Electric, type 6061 A
- 2 amplitude display/scale magnifier units, Kay-Electric, type 6076 A
- 1 contour display unit, Kay-Electric, type 6070 A
- 1 fundamental frequency extractor ("Trans Pitchmeter")
- 1 intensity meter (dual channel, with active variable highpass and lowpass filters)
- 1 electro aerometer (dual channel)
- 2 air-pressure manometers, Simonsen & Weel, type HB 66 (modified)
- 1 photo-electric glottograph
- 1 Fabre-Glottograph
- 1 palatoscope with complete outfit for palatography
- 1 segmentator, model IPO (Eindhoven)
- 1 Meyer-Schneider pitchmeter
- 1 stroboscope, Philips, type PR 9103
- 1 segmentator, type PT
- 1 electro-aerometer, four channel, type AM 508/4
- 1 audio frequency filter, type 445
- 1 data collecting system, type PT

2. Instrumentation for speech synthesis

- 1 formant-coded speech synthesizer
- 1 provisional vowel synthesizer
- 1 voice-source generator
- 1 larynx vibrator with power supply

3. Filters

- 1 LC highpass filter (with stepwise variation of cutoff frequency)
- 1 active RC lowpass filter

4. Instrumentation for visual recordings

- 1 mingograph, Elema 42 (4 channels)
- 1 mingograph, Elema 800 (8 channels)
- 1 kymograph (with electro-motor)
- 1 automatic frequency response and spectrum recorder, Brüel & Kjær, type 3332
- 1 oscilloscope, Telequipment (single beam)
- 1 oscilloscope, Solartron, type CD 1400 (dual beam)
- 1 oscilloscope, Tektronix, type 502 A
- 2 oscilloscopes, Tektronix, type 564 storage
- 1 dual-trace amplifier, Tektronix, type 3A1
- 1 four-trace amplifier, Tektronix, type 3A74
- 1 dual-trace differential amplifier, Tektronix, type 3A3
- 1 time-base, Tektronix, type 3B3
- 1 time-base, Tektronix, type 2B67

5. Tape recorders

- 1 professional recorder, Lyrec (stereo, speeds 7.5" and 15")
- 2 professional recorders, Lyrec (mono, speeds 7.5" and 15")
- 1 semi-professional recorder, Movico (stereo, speeds 3 3/4" and 7.5")
- 3 semi-professional recorders, Revox (stereo, speeds 3 3/4" and 7.5")
- 1 portable semi-professional recorder, Uher, type 4000, stereo

- 4 recorders, Tandberg, type 92 SL
- 1 recorder, Tandberg, type 7, stereo
- 4 semi-professional recorders, Revox (stereo, speeds 3 3/4" and 7.5")

6. Gramophones

- 1 gramophone, B & O (mono, Ortofon pick-up)
- 3 gramophones, Delphon (mono, Ortofon pick-up)

7. Microphones

- 1 microphone, Neuman, type KM 56
- 1 dynamic microphone, Sennheiser, type MD 21
- 2 crystal microphones, of different brands
- 2 microphones, Altec
- 1 1" microphone, Brüel & Kjær, type 4131/32
- 1 1/4" microphone, Brüel & Kjær, type 4135/36
- 1 larynx microphone

8. Amplifiers

- 1 microphone pre-amplifier, Telefunken
- 1 microphone amplifier, Brüel & Kjær, type 2603
- 1 laboratory amplifier (mono/stereo, with matching for different impedances)

9. Loudspeakers/headphones

- 7 different loudspeaker systems
- 5 headphones, AKG, type K 58
- 3 loudspeakers, Beovox, type 2600

10. General-purpose electronic instrumentation

- 1 oscillator, Hewlett & Packard, type CD 200
- 1 function generator, Wavetec VGC III (0.003 c/s-1 Mc/S)
- 1 frequency counter, Rochar, type A 1360 CH (5 digits)
- 2 vacuum-tube voltmeters, Brüel & Kjær, type 2409
- 1 vacuum-tube voltmeter, Heathkit, type V-7A
- 1 vacuum-tube voltmeter, Radiometer, type RV 23 b
- 1 DC millivoltmeter, Danameter, type 205
- 1 DC nanoammeter, Danameter, type 206
- 1 universal meter, Philips, type P 817
- 1 transistor tester, Taylor, model 44
- 1 Piston-phone, Brüel & Kjær, type 4220
- 1 component bridge C/L/R, Wayne Kerr, type B 522
- 1 AC automatic voltage stabilizer, Claude Lyons, type BTR-5F
- 4 resistance decades, Danbridge, type DR 4
- 1 condenser decade, Danbridge, type DK 4 AV
- 6 stabilized rectifiers
- 1 multi-generator, Exact, type 126 VCF
- 2 stabilized rectifiers, Danica, type TPS 1d
- 1 stabilized rectifier, Danica, type TPS 3c
- 1 impulse precision sound level meter, Brüel & Kjær, type 2204
- 1 attenuator set, Hewlett Packard, type 350 D
- 1 band-pass filter set, Brüel & Kjær, type 1615
- 1 digital multimeter, Philips, type PM 2422
- 1 timer counter, Advance, type SC3
- 1 oscillator, Advance, type J2E
- Additional oscillators, rectifiers, etc., for special purposes

11. Outfit for photography

- 1 Minolta camera SR-1 (with various accessories)
- 1 complete outfit for reproduction (including 1 Liesegang UNI-RAX with frame)
- 1 Telford oscilloscope camera, type "A" (polaroid)

12. Equipment for EDP

- 1 tape punch, Facit, type 4060
- 1 control unit, Facit, type 5106
- 1 tape reader, GNT, model 24
- 1 DECwriter, Digital, LA30P
- 1 computer, Digital, PDP8/E, 8K

13. Projectors

- 1 Liesegang epidiascope
- 1 Leitz projector for slides
- 1 Voigtländer Perkeo Automat - J 150
- 1 16 m/m tone film projector, Bell & Howell "Filmsound 644"
- 2 overhead projectors with accessories
- 1 projector, Leitz, type Pradovit color 250
- 2 overhead projectors, 3M company