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MEETING ON THE RELATIONSHIP OF  
CIGARETTE PAPER PROPERTIES TO SIDESTREAM SMOKE REDUCTION (SSR)

November 30, 1987

A G E N D A

- A. Review of current Kimberly-Clark SSR designs
  - Type: alumina, clay, chalk
  - Performance: % SSR, T/O, puff count, free burn rate, ash, odor/aroma, other criteria
  - Toxicology
- B. Cigarette paper properties and relationship to sidestream reduction (See Table 1)
- C. Methods for measuring sidestream properties
  - K-C methods
  - RJR methods
  - Methods development
- D. Other

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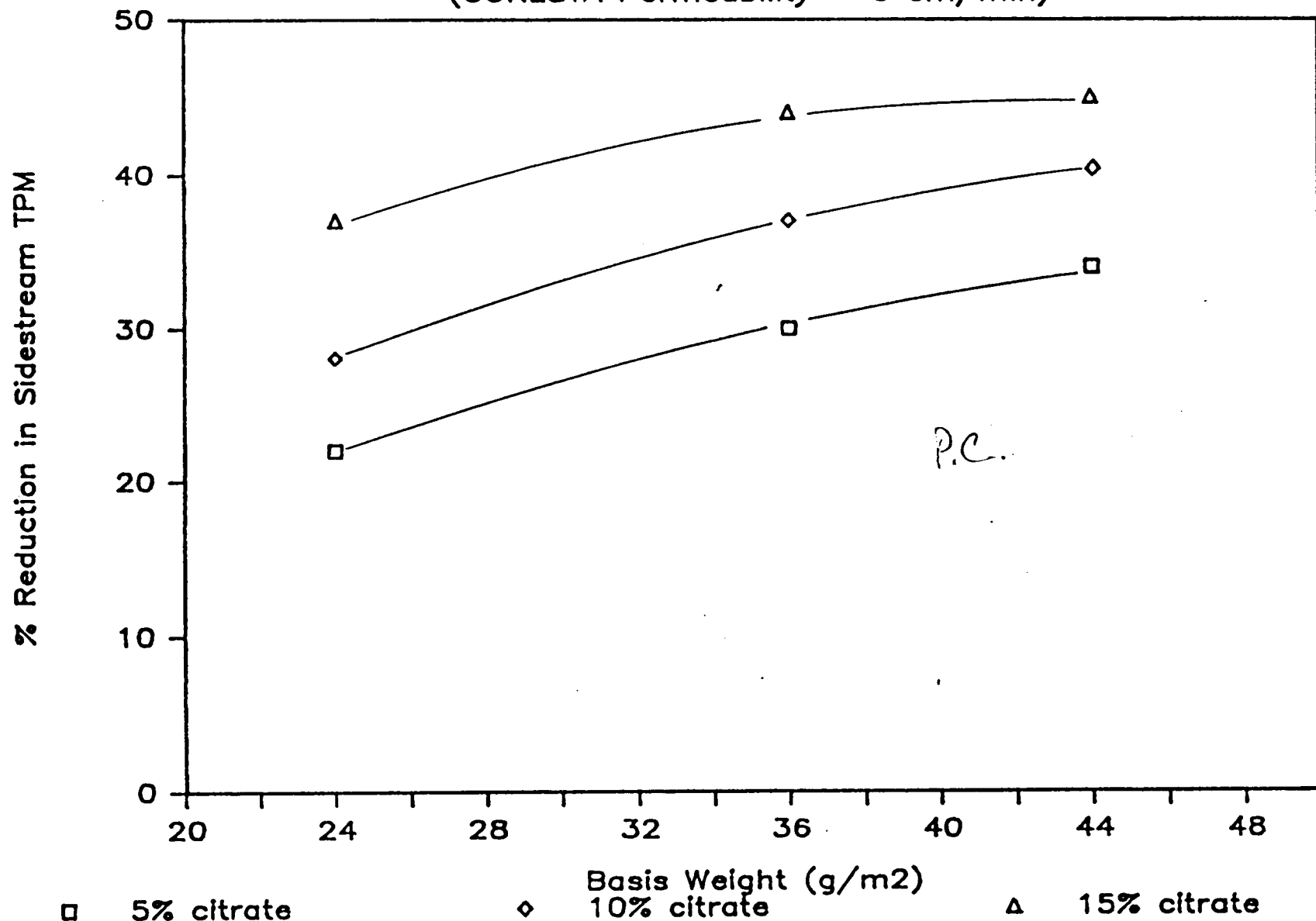
TABLE 1

Cigarette Papers: Properties and Relationships to Sidestream Reduction

<u>Feature</u>	<u>Affects SSR</u>	<u>Change Possible In Mfg. Process</u>
1. <u>Physical properties</u>		
* • basis weight	yes	yes
✓ • porosity (natural, perforate)	yes	yes
• opacity	no	yes
• thickness	yes	no
• embossing	no	yes/no
2. <u>Composition</u>		
a. <u>Filler</u>		
* • Type (chalk, clay, etc.)	yes	yes
✓ • Level	yes	yes
• Mixed filler systems	yes	yes
b. <u>Filler properties</u>		
• Size, shape, surface area	yes	yes
• Coatings, dispersion, charge	yes	yes/no
• Fiber/filler association	?	?
c. <u>Fiber</u>		
• Conventional (flax, wood, plant fibers)	no	yes
• Non-conventional (e.g., glass)	yes	?
d. <u>Chemical Treatment</u>		
• Burn additives (citrate, MAP, other salts)	yes	yes
• Other (e.g., NaCMC)	yes	yes/no
e. <u>Other</u>		

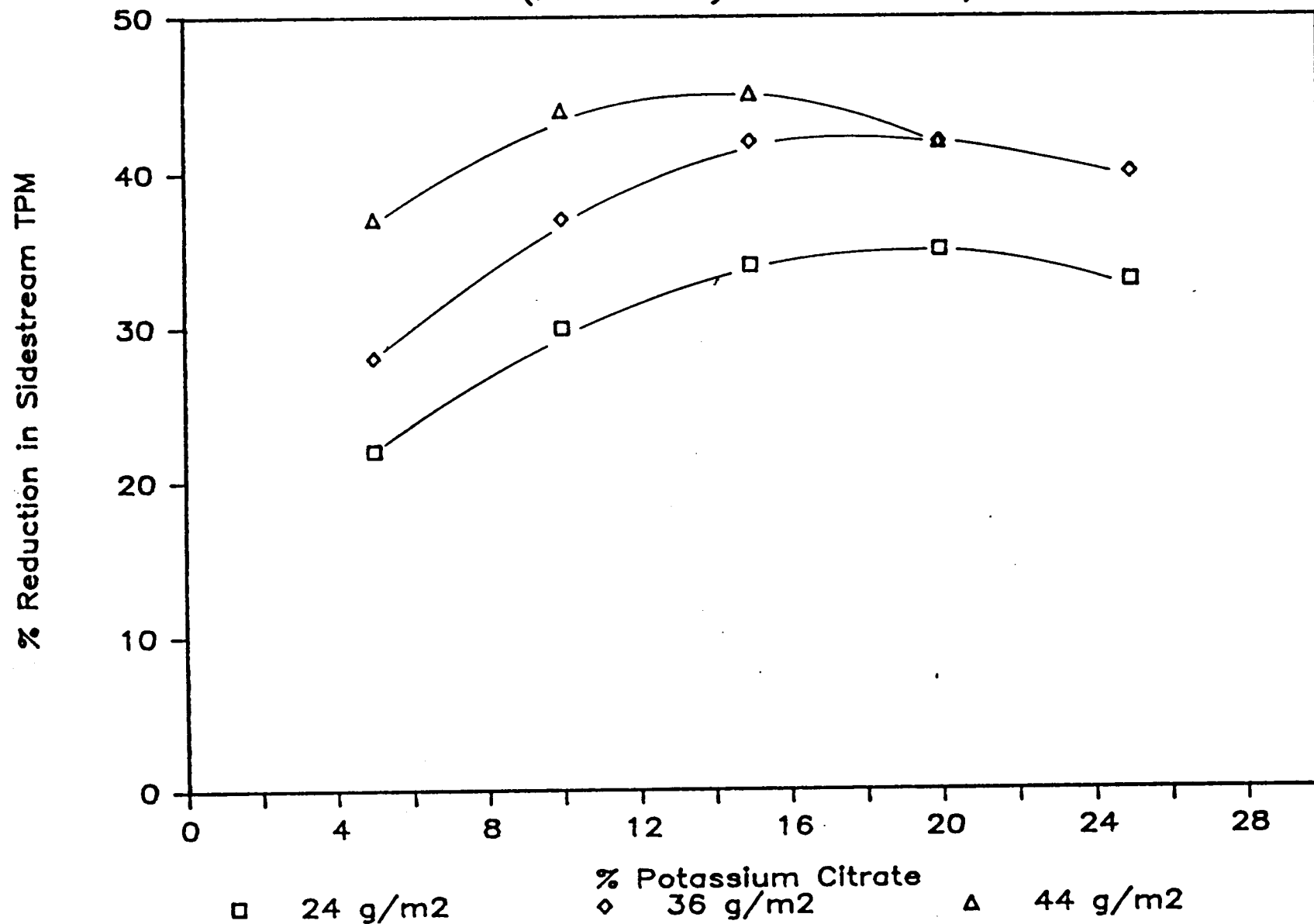
# Effect of Basis Weight

(CORESTA Permeability = 6 cm/min)



# Effect of Citrate Level

(Permeability = 6 CORESTA)



# Effect of Permeability

(Basis Weight = 24 g/m<sup>2</sup>)

