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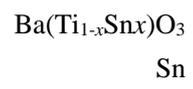
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- [1] Wumiti Mansuer 2022 9 2
Development of Laser-ARPES System for the Study of the Electronic Structure of Unconventional Superconductors

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- [2] 2022 9 2
Chiral Symmetry Breaking in Four-fermion Interaction Model with Thermal and Finite-size Effects

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- [3] HOU XUEYAO 2022 9 20
First Principal Calculation and Angle-resolved Photoemission Spectroscopy Study of Ultrathin Cr_2O_3 and CrTe_2 Films

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- [4] Amit Kumar 2022 9 20 92
Angle-resolved Photoemission Spectroscopy Study of Many-body Effects on 3D Topological Insulator Bi_2Te_3

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Kim Sangwook International Association of Advanced Materials Award

HOU XUEYAO

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15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures
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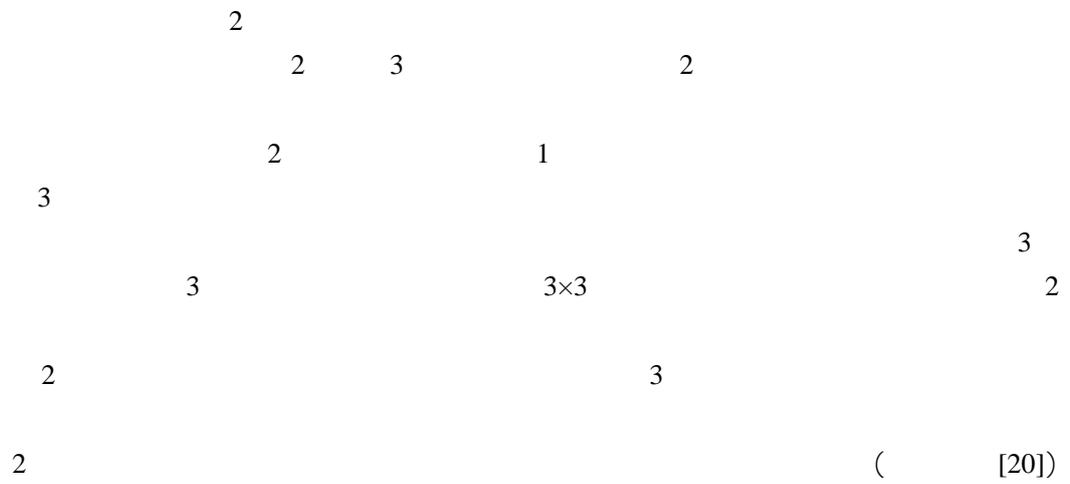
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Steffen A. Bass
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Construction of parton cascade model Base on SMASH: Frankfurt Univeristy
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Theory of Modified Gravity: ICREA, Barcelona
Sergei D. Odintsov
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Twisted Reduced Marix model: Universidad Autónoma de Madrid
Antonio Gonzalez-Arroyo
- [5] _____
(1) Time Variation of Particle Number: Tomsk State Pedagogical University (Russia)
Takata Hiroyuki
(2) Time Variation of Lepton Number: BRIN (,)
Apriadi Salim Adam

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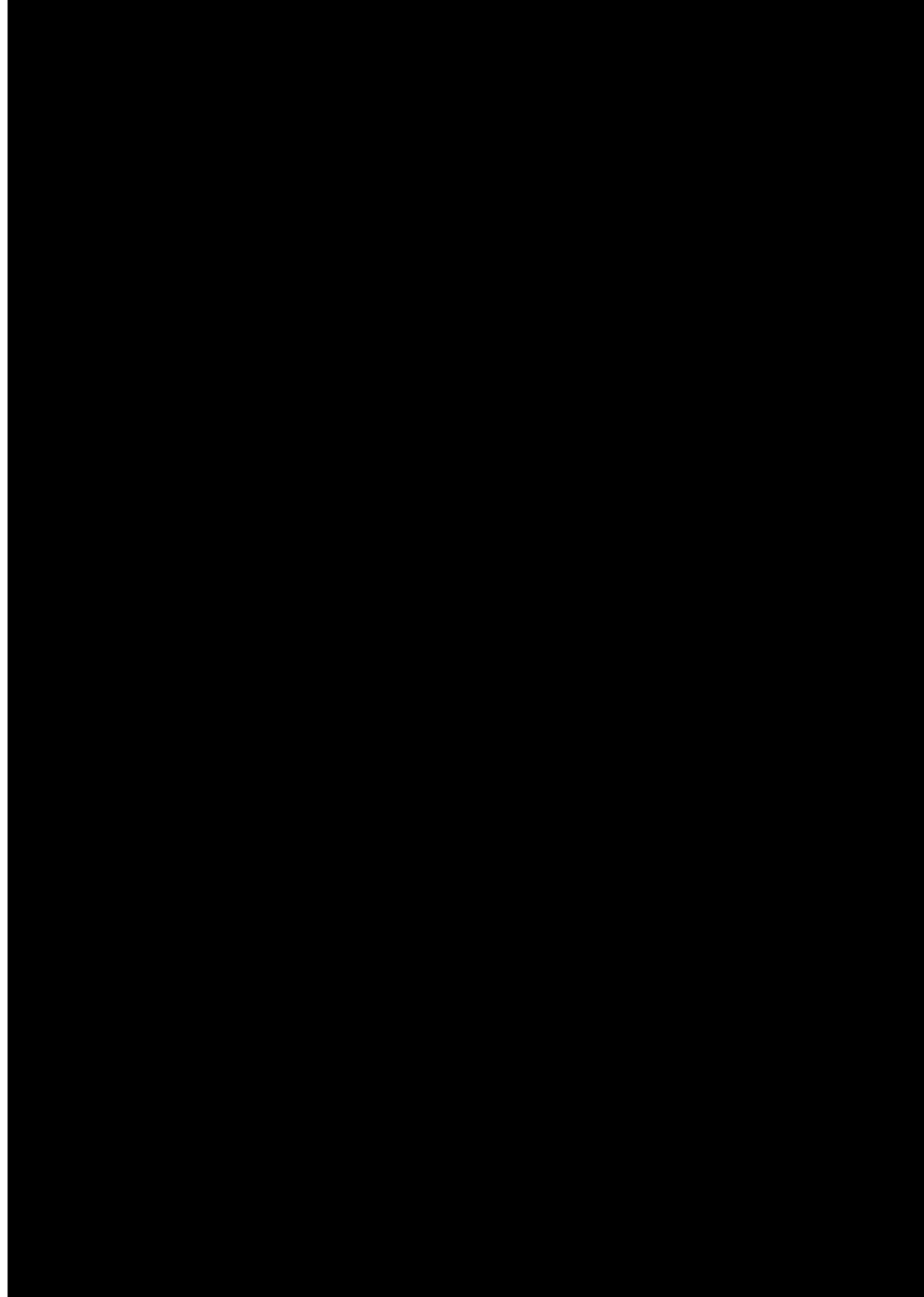
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[1] _____ 15th International Symposium on Ferroic Domains & Micro- to Nano-scopic Structures (ISFD-15) (2022.8.28-31, Kofu, Hotel Danrokan, Japan), Local Committee, () , 81

[2] _____ 14th Japan-China Symposium on Ferroelectric Materials and Their Applications (JCFMA-14) (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall, Japan), Academic Committee, () , 36 , 100

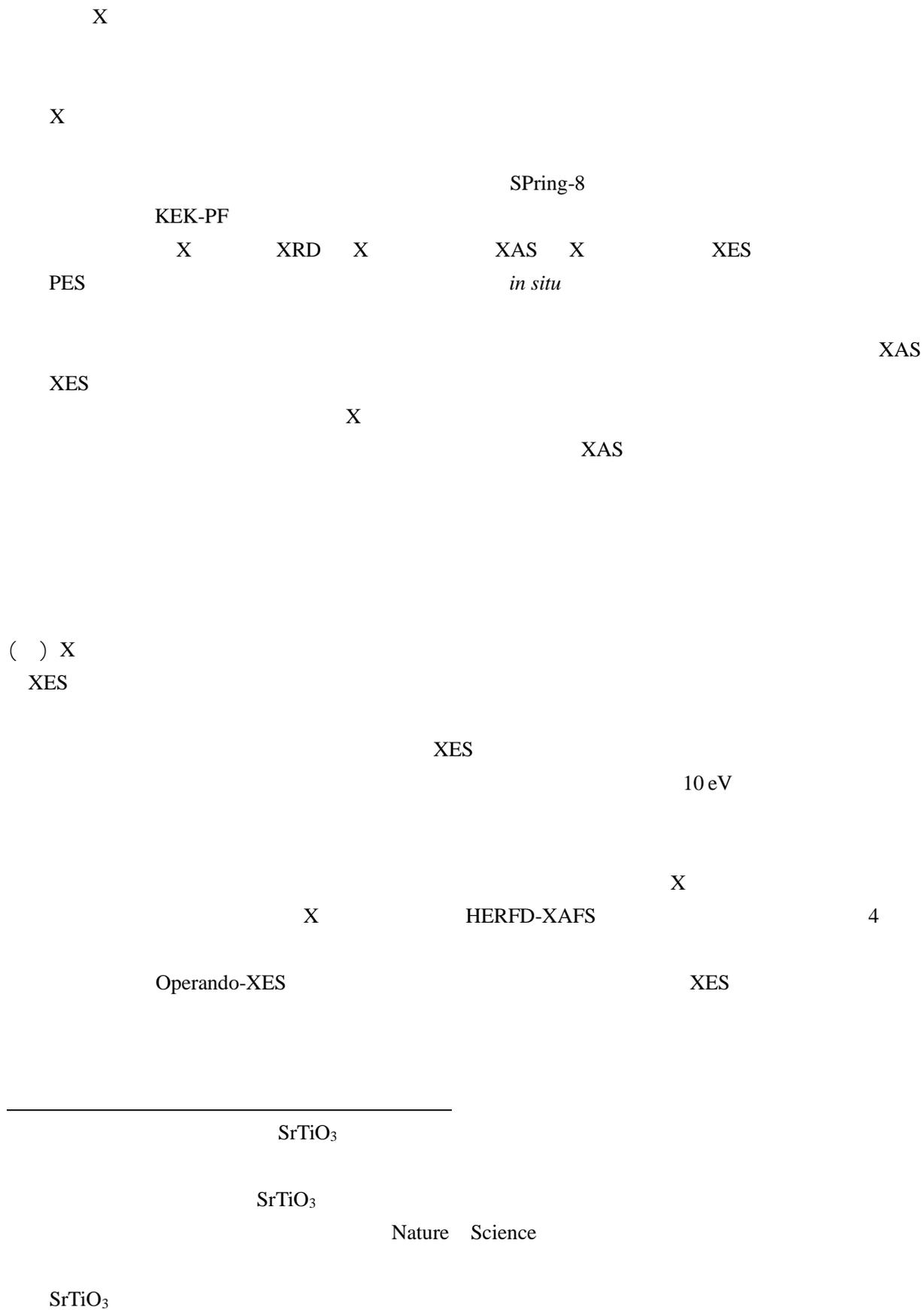
[1] _____ , 1 , , 2022 10 21

[2] _____ , 1 , , 2022 10 21

[1] _____ 2020 4 1

- [1] _____ B 2022 , 1,820
- [2] _____ B 2022 , 715
- [3] _____ X 2022 , 0
- [4] _____ X 2022 , 1,500
- [5] Kim Sangwook 2020-2022 , 2,000

- [1] (M2) Poster Award, 15th International Symposium on Ferroic Domains & Micro- to Nano-
scopic Structures (ISFD-15) (2022.8.28-31, Kofu, Hotel Danrokan, Japan)
- [2] (M1) 52 , 2022 83
2022 9 20 -23 ,
- [3] (M2) Best Poster Presentation Award, 14th Japan-China Symposium on Ferroelectric
Materials and Their Applications (JCFMA-14), (2022.12.8-9, Kanazawa, Kanazawa Bunka Hall,
Japan).
- [4] Kim Sangwook International Association of Advanced Materials Award (IAAM Award),
International Association of Advanced Materials . European Advanced
Materials Congress 2022 6



SrTiO₃

X

10 nm

SrTiO₃

BaTiO₃

Acta

Materialia

X

()

X

Badri Rao

Rao

X

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SPring-8

X

2

X

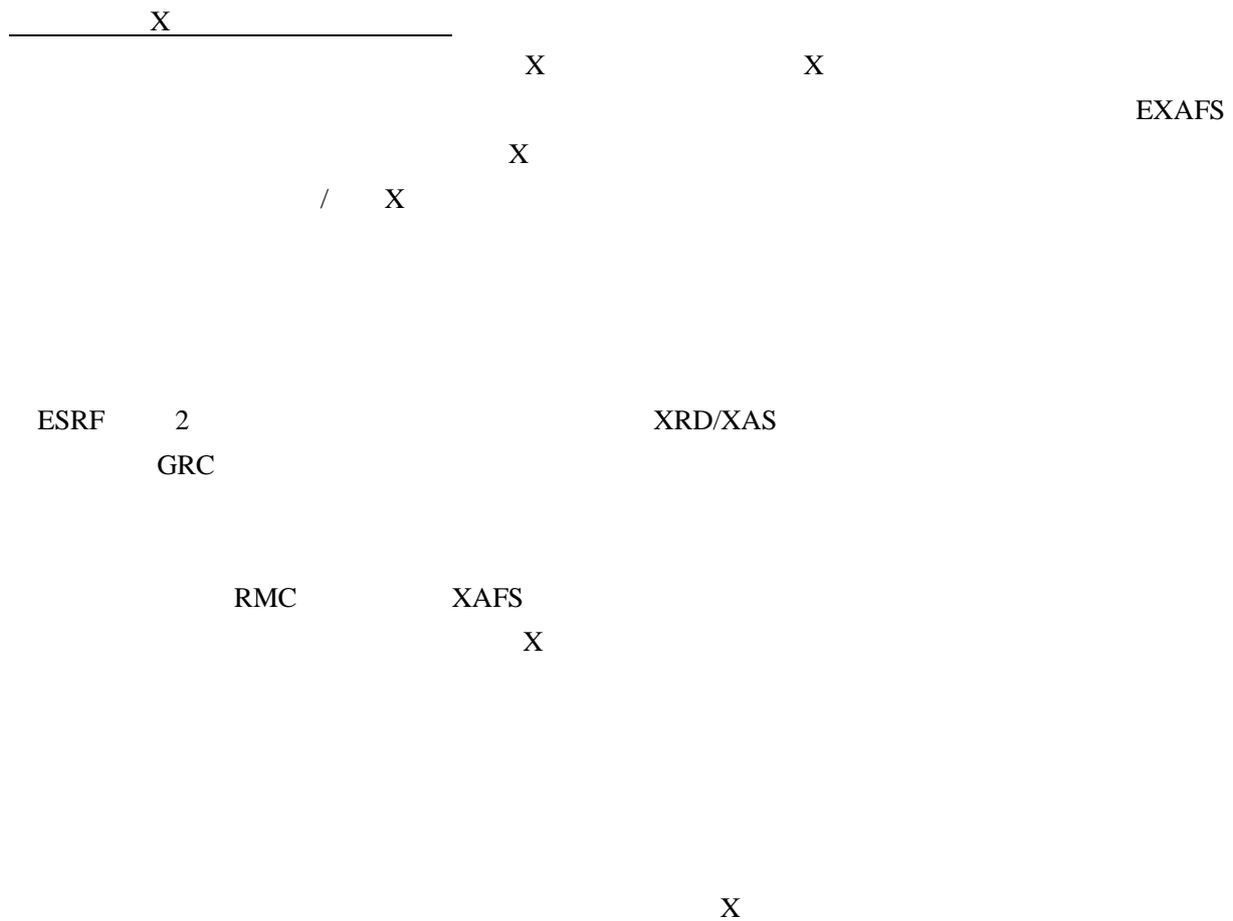
TiO₂

TiO₂

TiO₂

X

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458 2 , 2022

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- [3] Keita Hiromori, “Correlation between valence-band structure and photocatalytic activity on the surface of natural anatase TiO₂ crystal by micro XPS” R C INTERNATIONAL SUMMER SCHOOL 2022 (2022.8.14-21, Varberg)

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[1] _____ 15 RCBJSF 3

[2] _____

[3] _____ SPring-8

[4] _____

[5] _____ 26 XAFS

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[2] _____ SPring-8

[3] _____ SPring-8

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[1] _____ 1 2

[2] _____ (ESRF) A. Rosa

[3] _____ B. Harihara Venkataraman Aurivllius

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[1] _____ (B) 2021 -2023 , 4,000
Fe

- [2] _____ (A)
 2021 -2022 , 3,000
 Fe-Fe
- [3] _____ (B) 2020 -2023 , 300
- [4] _____ (B) 2022 -2024 , 17,180

- [1] (M2) 25 XAFS , 2022 8 3
- [2] (D2) , 2023 3 15
- [3] (D3) 3 , 2022 4 3

Angle- resolved photoelectron spectroscopy = ARPES

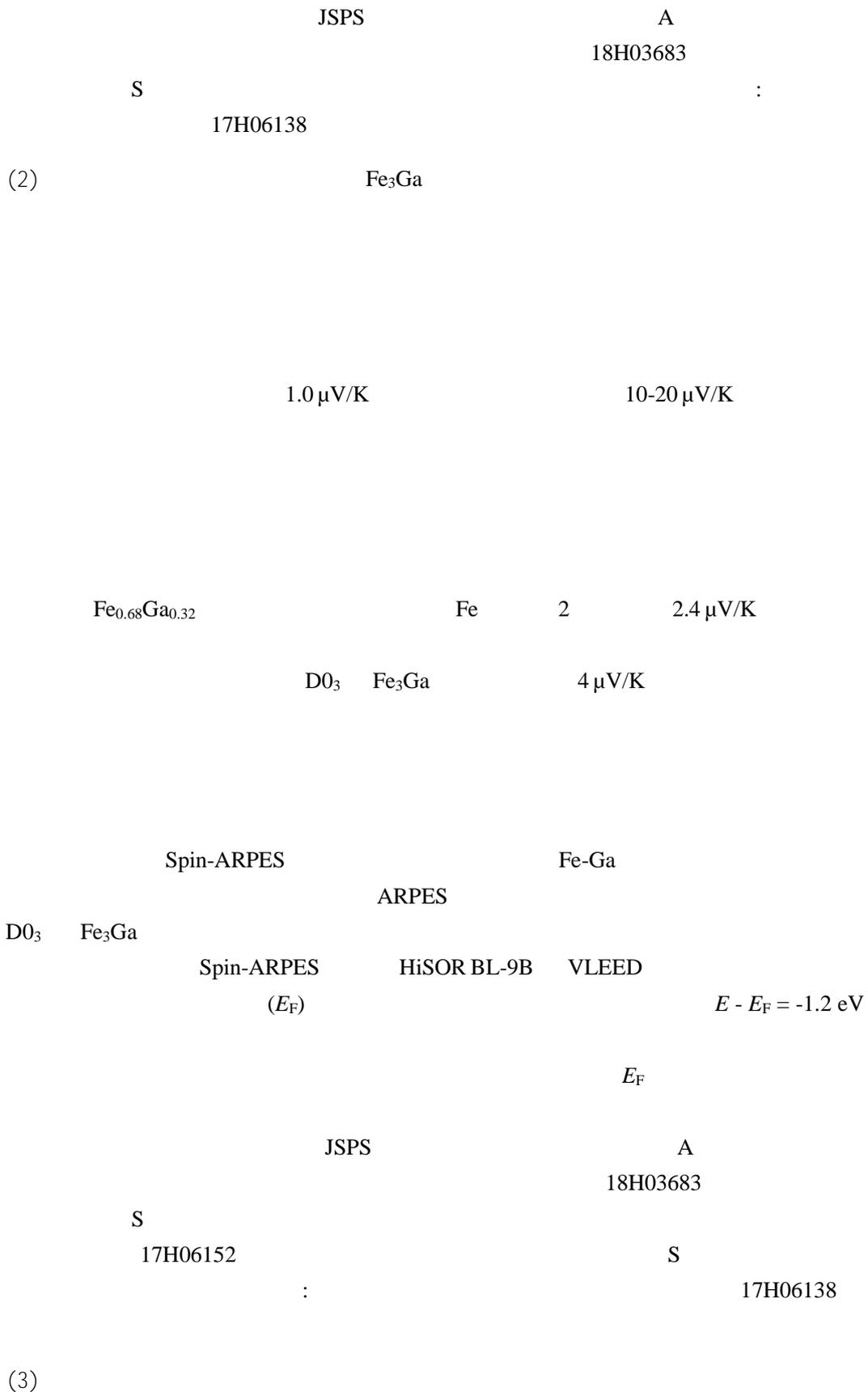
ARPES

(1) $\text{HfP}_{2-x}\text{Se}_x$

2010

2

3
40%
PbTaSe₂
ZrP_{2-x}Se_x
ZrSiS
65%



RMnSi (R=La,Ce)
 P4/nmm $T_N \sim 294$ K
 1(b)

BaMn₂As₂ EuMnBi₂

RMnSi T_N
 $q = 0$

LaMnSi CeMnSi

RMnSi (R = La, Ce)
 SPring-8 BL25SU HiSOR BL-1 BL-9A X (SX)
 (VUV) (ARPES)

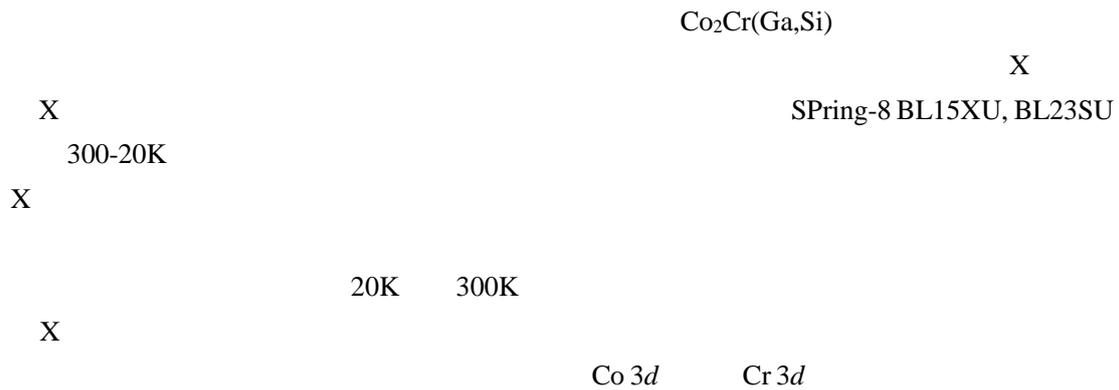
SX-ARPES k_z
 3 $- X$
 k_x-k_y T_N T 50 K $- X$
 X ARPES

p VUV ARPES CeMnSi 50 K ($< T_N$)
 LaMnSi

Mn 3d Mn 3d
 RMnSi (R=La,Ce)

$q = 0$

(4) Co₂Cr(Ga,Si) Co₂CrGa
 Co
 Co₂CrSi [X. Xu et al., Appl. Phys. Lett. **103**,
 164104 2013]
 Co₂Cr(Ga,Si)



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Taichi Okuda, Shinji Isogami, Keisuke Masuda, Yuya Sakuraba, Akio Kimura, “Band structure of ferromagnetic Fe₄N thin-film revealed by spin- and angle- resolved photoelectron spectroscopy”, APS March Meeting 2023 (2023.3.9, Caesars Forum Convention Center, Las Vegas, USA).

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[1] _____, ARPES
2022 _____ 2023 3
28 ,

[2] _____, _____, _____, _____, _____, _____, ARPES
Fe₄N _____ 4 _____ 2023 3 3

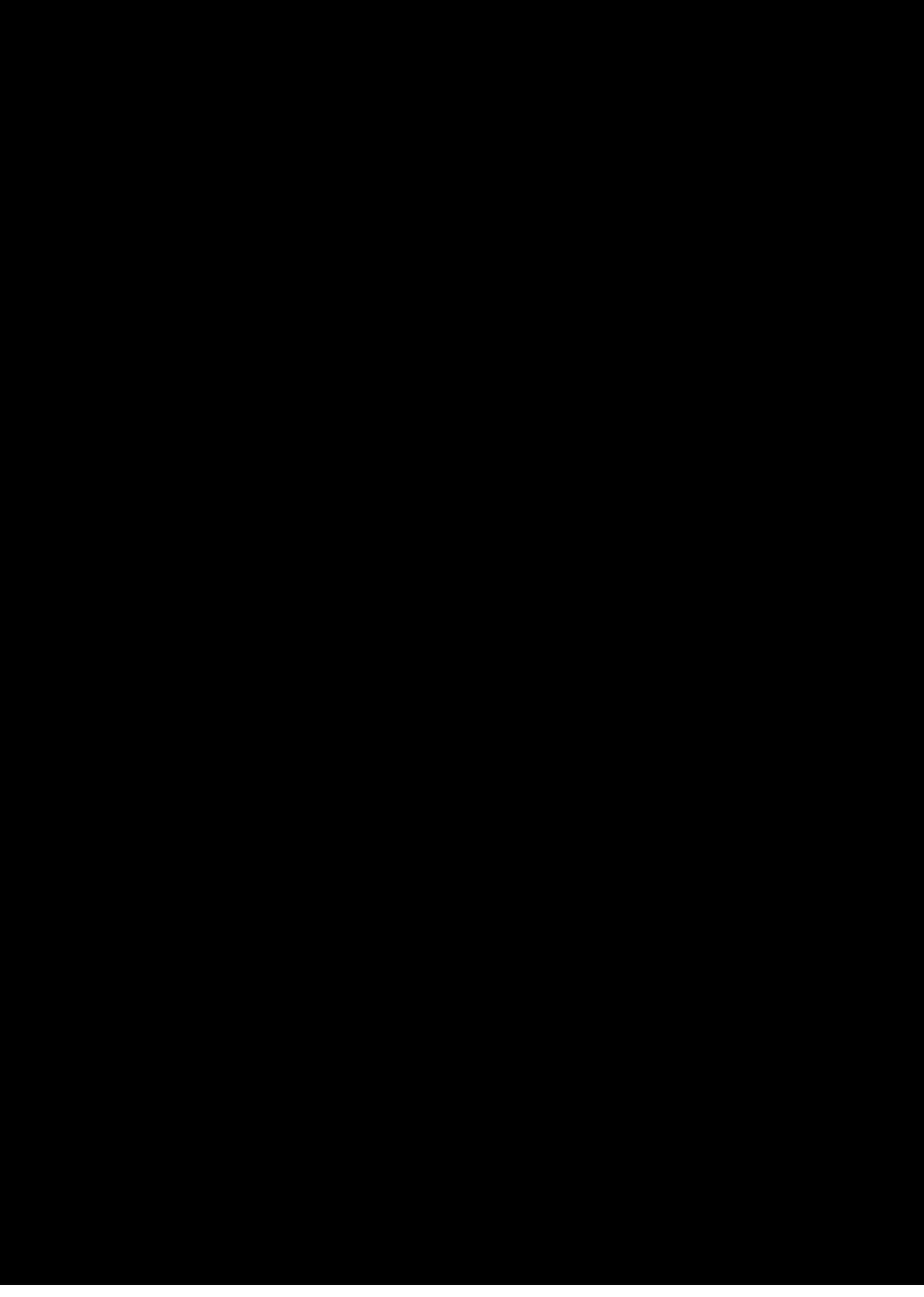
[3] _____, NanoTerasu _____ 36
2023 1 8 , _____ ,

[1] _____,
2022 9 1 , _____ ,

[1] Jadupati Nag, Yukimi Nishioka, Yasumasa Takagi, Akira Yasui, Aftab Alam, K. G. Suresh, Akio Kimura, “CoFeVSb: A Promising Spintronic and Thermoelectric Material” 70
, 2023 3 17 ,

[2] _____, _____, _____, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____, Fe₄N
2022 _____ , 2022 9 15 ,

[3] _____, _____, _____, _____, _____, _____, _____, _____,
_____, _____, _____, Fe₃Ga _____ 2022
, 2022 9 14 ,



			, 4,200	2022
[2]	_____ 4		, 1,200	2022
[3]	_____	(B) 2022-2024		
	(Pb,Sn)Te		, 300	2022
[4]	_____	2022	, 8,700	2022
[5]	_____	(B) 2022-2024		
			, 7,200	2022
[6]	_____	() 2022-2023	
				, 3,100
	2022			
[7]	_____	(C) 2022-2024		
			, 1,200	2022

SAM

2022

SAM

SAM

CHC

CHC

10⁻¹⁵

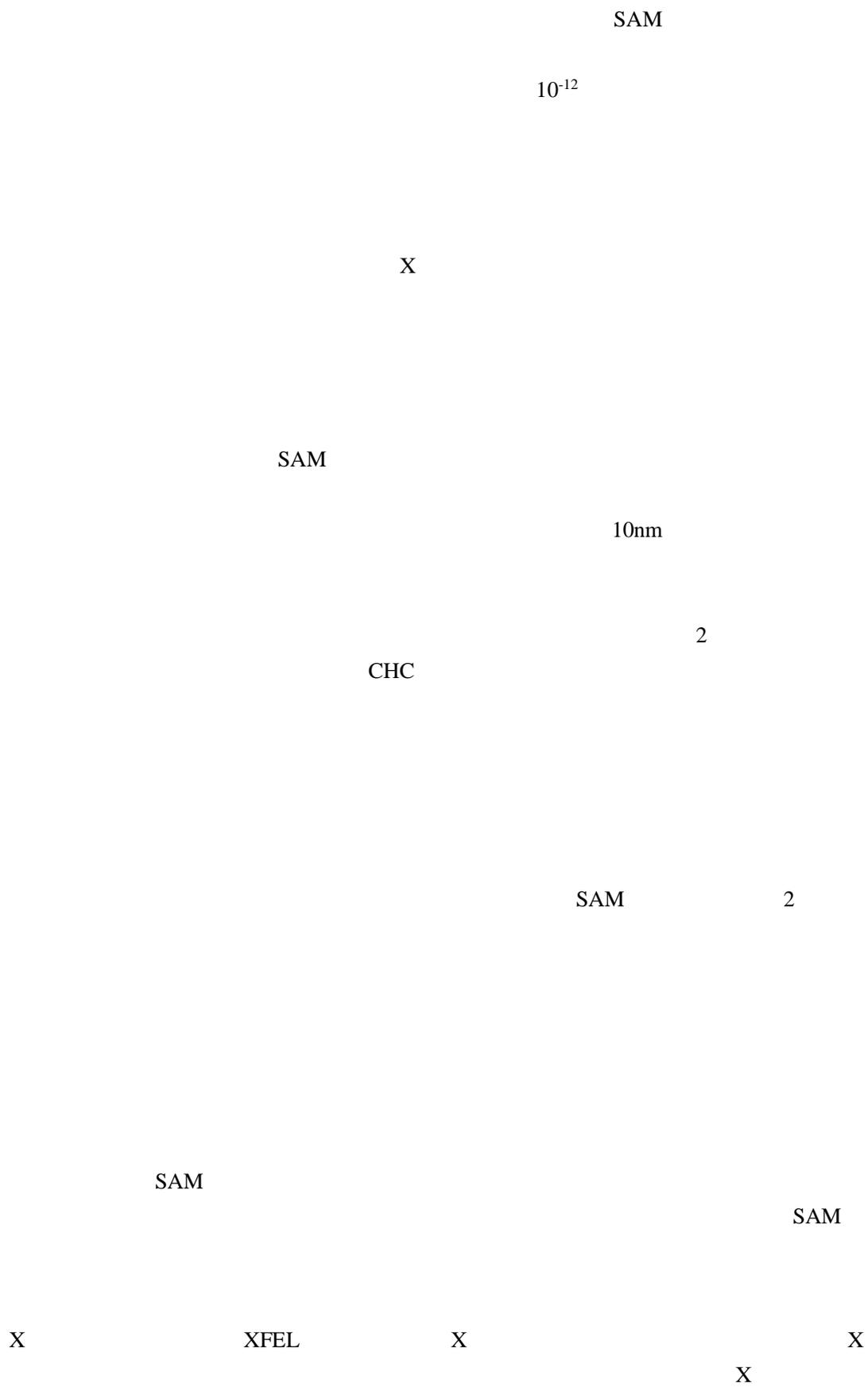
2

SAM

CHC

SAM

CHC



SACLA
 SACLA
 2022
 (NIR)

SACLA X FEL
 Xe

Xe Xe¹⁺ Xe²⁺

XFEL

4d

SACLA

X

SACLA

X

X

native

SAM

DPPC DOPC 2

2

X

2

NMR (NA)

(AA)

(CD)

, , -CD NA

AA

Bruker AVANCE700MHz NMR ¹H-NMR 2D-ROESY -

[1] _____, _____, “XFEL X Xe”, _____, /7, 80-88 2022

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[1] _____ 36

[1] _____, _____ SACLA , , , ,

[1] _____	C	900	
[2] _____	B	800	
[3] _____			1,560
[4] _____		2,080	

X

2022

Bi₂Te₃

0.02-0.13

0.2

Re(0001) Tamm Shockley 2

ARPES R&D ARPES

Re(0001) 2

2

Cr₂O₃

3d_{z²}

(H2A-H2B) 37°C 2 in vitro

H2A-H2B

SPIDER 10 10

2022

136 111 69 50.7% 67 49.3%

27 9 4 5
2 7 4 1

KEK KEK KEK KEK

KEK
KEK

BL-1 BL-9A | œ

HiSOR

R&D

5

5

5
HiSOR-II

2022

29

15

Flash Poster Session

1

3

3

69

41

18

18

4

3

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[1] _____	(C)		4,290	2022	1,430	
[2] _____	(A)			45,890	2022	4,810
[3] _____	(A)	42,640	2022	13,260		
[4] _____	()		6,240	2022	1,820	
[5] _____	(C)		4,160	2022	1,820	
[6] _____	4			JSPS		158
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2020	74	5	71	47
2019	57	5	58	43
2018	64	5	65	46
2017	63	7	64	48

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Constraints on mass-dependent intrinsic scatter in
scaling relations

Bi_2Te_3

SrNi_2P_2

P_2

ARPES

h-BN/Ni(111)

Cr

Mn

YbCu_4Ni

$\text{Dy}_2\text{Fe}_{17}$ $\text{Ho}_2\text{Fe}_{17}$

XRISM

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42	μeV		
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44		NdPt ₆ Al ₃	
45			CsKSb
46	GaAs NEA		
46	Yb Ge(= Ni, Ir)		
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48		CeTe	
49		DyNi ₃ Al ₉	Shastry-Sutherland
		ErB ₄	
50	X		
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52			
53		GRB	Liptak
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55	A review of chiral phase transition in the 1+1 dimensional Gross-Neveu model		
56	Yb	YbCuS ₂	
	Lu, Se		
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59	Haldane		
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